

# Higher Education Research: A Compilation of Journals and Abstracts 2020

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U N I K A S S E L  
V E R S I T Ä T

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# INCHER-Kassel: Higher Education Research – A Compilation of Journals and Abstracts 2020

The *Compilation of Journals and Abstracts 2020* contains 30 pertinent, mainly international academic journals from the interdisciplinary field of higher education research. The collection ranges from decidedly higher education research to sociological, organizational, labor-market-focused, theoretical and empirical contributions to higher education research. The selection is provided by the Library and Research Information Services at INCHER-Kassel, University of Kassel, recommended as information and research tool.

## Dataset

The full datasets of back, recent and forthcoming issues are provided as an open access bibliographic database or so called Public Group Library in Zotero, named [INCHER Compilation of Journals and Abstracts](#).

You are welcome to use and share this database and its options for further processing.

## Guideline

The journals are listed in alphabetical order. General webpages and internet presence are linked on the first page of each journal, as well as electronic access options in Germany. The linked "access options via EZB" redirect to the specific Germany-wide journal entry in Electronic Journals Library (EZB). For all users electronic and print access options are provided. Users registered in an institutional network will be able to access all electronic content provided by their specific institutional licenses directly, e.g.:

The screenshot displays the EZB website interface. At the top, there is a header with the EZB logo, the text 'Electronic Journals Library Kassel University Library', and the 'UNIKASSEL BIBLIOTHEK' logo. Below the header, a search bar contains the text 'Journal' and a 'search' button. To the left of the search bar, there is a sidebar with navigation links: 'Journals', 'Journal Search', 'List by Subject', 'List by Title', 'List of new EZB journals', 'Institution', 'Contact Person', 'Suggest a Journal', 'Choose Institution', 'Information & Service', 'About the EZB', 'EZB Help', and 'EZB Services'. The main content area shows search results for 'Higher Education'. It includes a section for 'Online Availability: Fulltexts available' with three entries: 'To the fulltexts: Übergangsvereinbarung DEAL : Vol. 33, Iss. 1 (1997) - I', 'To the fulltexts: Vol. 33 (1997) - I', and 'To the fulltexts: Nationallizenz : Vol. 1 (1972) - Vol. 44 (2002) (funded by the EZB) - I (funded by the EZB)'. Below this, there is a section for 'Printversion available too?'. The 'General information on the online edition:' section provides details about the journal, including its title, publisher, subject, keyword, ISSN, and price type.

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To the fulltexts: Vol. 33 (1997) - I

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Printversion available too?

General information on the online edition:

Title: Higher Education

Aktuelle Artikel: Newsfeed

Publisher: Springer Science+Business Media B.V. (formerly Kluwer Academic Publishers)  
Search publisher's open access policy in SHERPA/ReMeO

Subject(s): Nature of Science, Research, Systems of Higher Education, Museum science

Keyword(s): Höheres Bildungswesen | Hochschule

E-ISSN(s): 1573-174X

P-ISSN(s): 0018-1560

ZDB-Number: 2015566-9

Fulltext online since: Jg. 1, H. 1 (1972)

Homepage(s): <http://link.springer.com/journal/10734>

Type of appearance: Fulltext, online and print

Pricetype: free of charge in conjunction with print subscription

Pricetype annotation: free of charge with print subscription (campus wide license)

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Each journal's contents are – as far as applicable - sorted by *Editorials*, *Original Articles*, *Reviews* and *Specials* (Errata, Corrigenda, Retractions, Thought Pieces, Thesis Abstracts etc.) Within these sections, corresponding articles are sorted by author in alphabetical order, including full bibliography, Digital Object Identifier (DOI) and abstract (adopted from publisher).

Comments and suggestions for improvements for further editions of the *Compilation* are most welcome. Please contact: [library@incher.uni-kassel.de](mailto:library@incher.uni-kassel.de)

Example of the structure of records (as explained above):

## Higher Education (79) 2020

General Web Presence (as  
of July 2021)

Journal Title, Volume, Year

<http://link.springer.com/journal/10734>

[license required | [DEAL 2020](#) | access options via [EZB](#)]

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### Original Articles

Link to

- Germany-wide Institutional Access Options
- Public Bibliographic Database

Anderson, Vivienne; Rabello, Rafaela; Wass, Rob; Golding, Clinton; Rangi, Ana; Eteuati, Esmay et al. (2020):

Good teaching as care in higher education.

In: *Higher Education* 79 (1), S. 1–19. DOI: 10.1007/s10734-019-00392-6.

*Abstract:*

Care has received relatively little attention in higher education (HE) literature. However, literature alluding to care reveals contrasting perspectives. Some scholars diminish care concerns as a product of the marketised university, where students-as-consumers insist on 'safe' teaching and the avoidance of 'troublesome knowledge'. Others position care as an ethical pedagogical stance, given the power asymmetries inherent in university life. Some suggest that attention to care in HE is risky, since it troubles gendered boundaries between public and private life, and rationality and emotion. In this article, we discuss a research project that explored diverse students' conceptions of good teaching and effective learning at a research-intensive university in Aotearoa New Zealand, using focus group discussions, critical incident technique and photovoice. Participants included 55 Maori, Pacific, international and (other) local students enrolled in Health Science and Humanities subjects. Although care was not the focus of the study, all cohorts of students represented care as a key marker of good teaching. They described good teachers as people who care about their discipline, care about teaching and care about students, powerfully influencing students' engagement with subject matter, enthusiasm for learning and aspirations for the future. While some students acknowledged and lamented their position as consumers in marketised HE, they also revealed an awareness of the factors that constrain teachers' capacity to care and expressed gratitude for teachers' investment in students. We argue for the need to recognise teaching in HE as cognitive, emotional and embodied work; to acknowledge teachers' powerful influence on students; and to avoid simplistic representations of both teachers and students in contemporary HE.

## How to browse and search the document

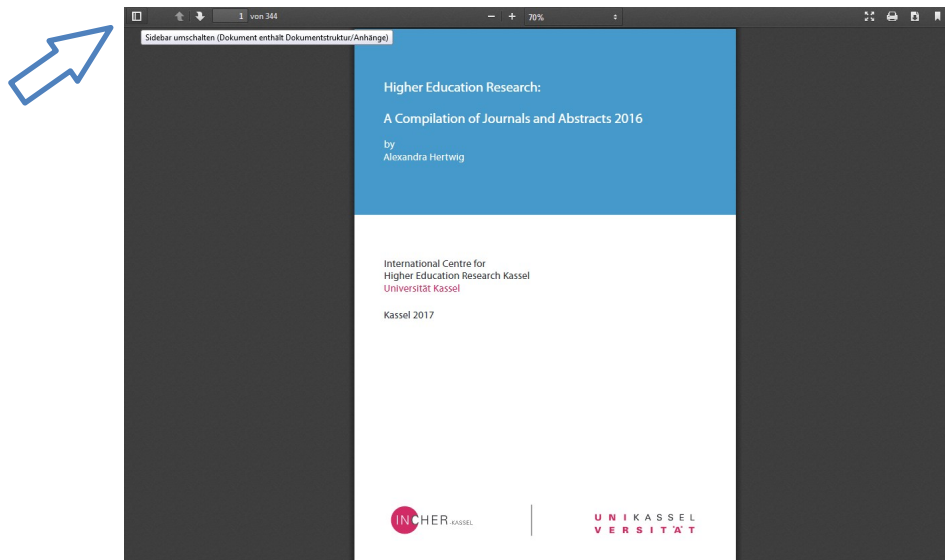
The contents provide the full list of the 30 journals included in the *Compilation*. Skip to a journal by clicking on the title.

**OR**

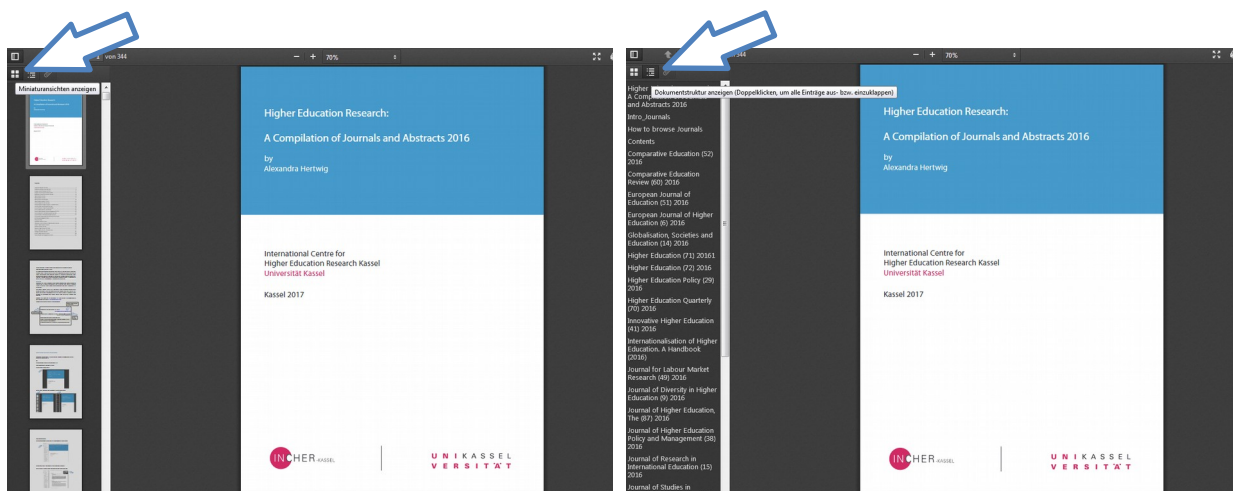
Use the bookmark function to see the journal titles:

View in Web-Browser (here Mozilla Firefox):

Tick the sidebar icon on the left:

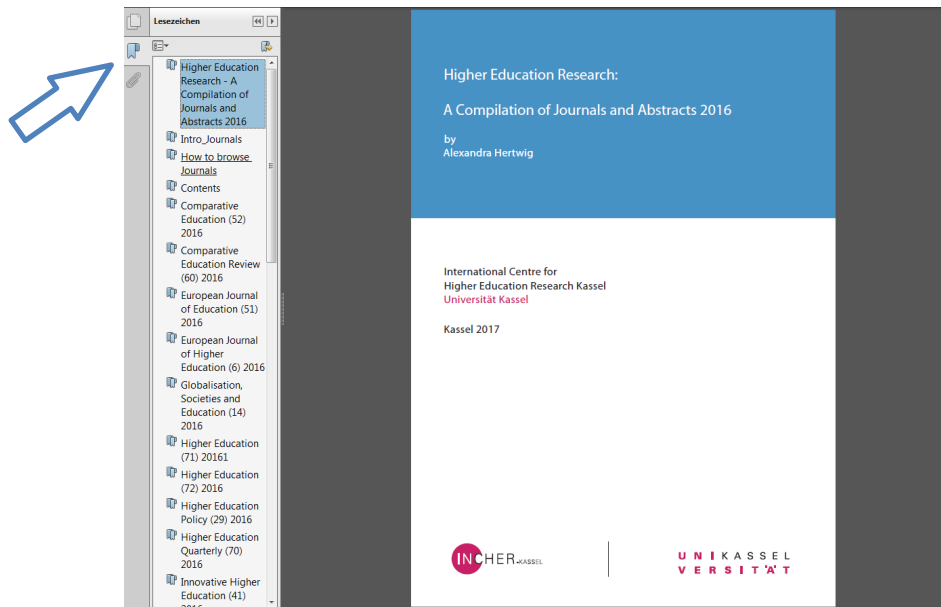


Switch sidebar from page view to document structure, choose journal:



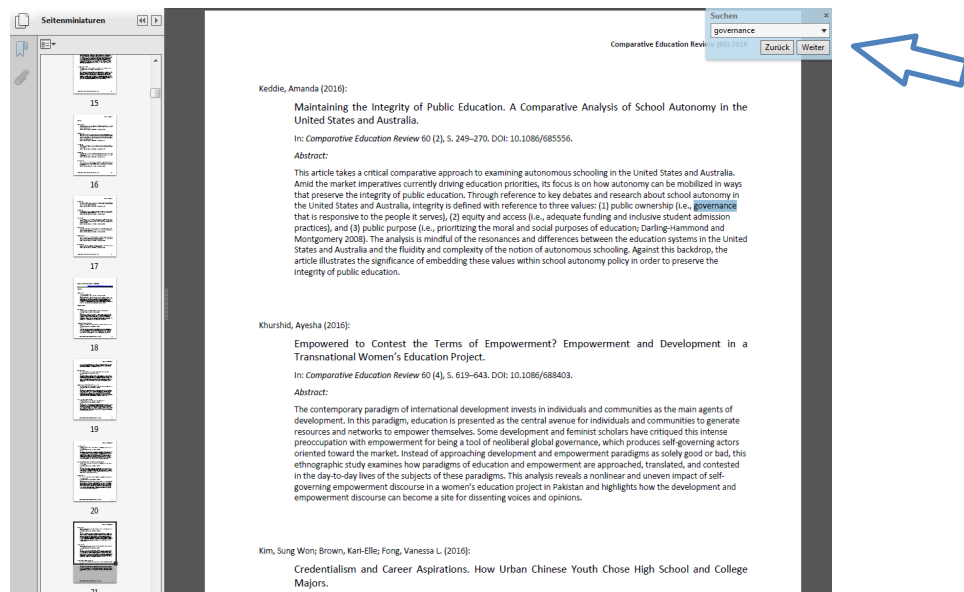
View in Adobe Acrobat:

Tick the blue bookmark icon on the left to view bookmarks, choose journal



Use the search tool to find relevant articles on one topic, author etc.

Press Ctrl/Strg + F. Search field will pop up on the right. Type search term.



# Comparative Education (56) 2020

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## Editorials

Kim, Terri (2020):

Biographies of comparative education. Knowledge and identity on the move.

[Editorial]. In: *Comparative Education* 56 (1, SI), S. 1–2. DOI: 10.1080/03050068.2020.1714327.

Morris, Paul (2020):

Editorial.

[Editorial]. In: *Comparative Education* 56 (2), S. 143. DOI: 10.1080/03050068.2020.1744808.

Proctor, Helen; Roch, Anna; Breidenstein, Georg; Forsey, Martin (2020):

Parents, schools and the twenty-first-century state. Comparative perspectives.

[Introduction]. In: *Comparative Education* 56 (3, SI), S. 317–330. DOI: 10.1080/03050068.2020.1781422.

*Abstract:*

This article introduces a collection of papers comprising the special issue *Competing interests: Parents, Schools and Nation States*. Drawing on the seven papers in the collection, and situating them in recent developments in the sociological field, the article discusses globally shifting relations between families, schools and the state across a range of nations in the late twentieth and early twenty-first centuries (Australia, Germany, India, Norway, Singapore, Sweden, USA). The article proposes that the school is a crucial site for relations between family and state, and argues that a significant focus of the material and occupational investment of contemporary parents is the formal education of their children, re-shaping not only the relationship between parents and schools but also the nature of parenthood itself. In the contemporary context of global neoliberal education reform, parents are analysed both as local actors in schools and as subjects of national and international policy regimes.

## Original Articles

Addey, Camilla; Gorur, Radhika (2020):

Translating PISA, translating the world.

In: *Comparative Education* 56 (4), S. 547–564. DOI: 10.1080/03050068.2020.1771873.

*Abstract:*

The OECD is extending the participation of low- and middle-income nations in its Programme for International Student Assessment (PISA). To explore how PISA can be made more relevant to these contexts, a pilot study, PISA for Development

(PISA-D), was launched. Translating PISA into PISA-D required the development of instruments that had relevance to the new contexts while maintaining comparability across all PISA participants. Drawing on Science and Technology Studies and Callon et al's theory of the three stages of translation of research, and based on detailed empirical data, this paper describes how the technical and the political, and the material and the semiotic, work together to make PISA 'fit' new contexts, while at the same time making the new contexts 'fit' PISA. This paper demonstrates how international comparisons demand profound changes in the ways countries come to know, represent, and act upon their education systems.

Bendixsen, Synnove; Danielsen, Hilde (2020):

### Great expectations. Migrant parents and parent-school cooperation in Norway.

In: *Comparative Education* 56 (3, SI), S. 349–364. DOI: 10.1080/03050068.2020.1724486.

#### Abstract:

One long-standing characteristic of schools in Norway is inclusive education as a primary goal. The last years, the Norwegian government has emphasised increased parent-school cooperation as a way to limit risks, i.e. of drop-outs. This article focuses on how parent-school relationship is played out in an economic and socially diversified urban borough in Bergen, Norway. It draws on fieldwork and interviews among parents, teachers and principals in three different schools. As this article shows, the increased focus on parents' active engagement in the school encourages and creates expectations of an intensive parenting model. Yet, not all parents are ready, willing or have the capacity to pursue the intensive parenting model. We suggest that the current promotion of middle-class intensive parenting by schools, in practice, shifts the responsibilisation of equal education away from the state towards individual families and undermine the ideals of inclusive education and equal opportunities in Norway.

Breidenstein, Georg; Krueger, Jens Oliver; Roch, Anna (2020):

### Parents as 'customers'? The perspective of the 'providers' of school education. A case study from Germany.

In: *Comparative Education* 56 (3, SI), S. 409–422. DOI: 10.1080/03050068.2020.1724485.

#### Abstract:

The global establishing of school choice has often and convincingly been criticised in terms of social inequality because parents have very different access to resources to enforce their expectations and demands as 'customers'. What is less discussed in the literature is the perspective of the 'providers': Do schools have to give up their position of predominance towards parents, when the single school becomes dependent on the parents' choice and decisions? The contribution explores the viewpoint of providers of primary school education in Germany. This may be particularly instructive as school choice is a rather new phenomenon in Germany. By focusing on a selection of three contrasting interviews with school leaders, representing different positions on the educational 'market', we show that only in a very fragmented and precarious sense reference is made to the concept of parents as 'customers'.

Chiong, Charleen; Dimmock, Clive (2020):

### Building trust. How low-income parents navigate neoliberalism in Singapore's education system.

In: *Comparative Education* 56 (3, SI), S. 394–408. DOI: 10.1080/03050068.2020.1724487.

#### Abstract:

Singapore is described as a hybrid neoliberal-developmental state. While politicians have, since the city-state's independence, exercised 'strong' ideological leadership over Singapore's economy and society, including education - there are simultaneously aspects of 'neoliberal' logics in Singapore's education system: extensive school choice and streaming, academic competition and the self-responsibilising meritocratic ethos. Literature on the nature and effects of neoliberalism typically depicts rising inequalities and families' growing anxieties, due to competition and self-responsibilisation. Drawing on in-depth interviews, this article explores how a group of low-income Malay parents navigate two aspects of institutionalised neoliberalism: (1) responsibilisation of young people within a meritocratic regime, (2) responsibilisation of



parents as stakeholders in an increasingly complex education landscape. We find that while families internalise responsibilisation - profound trust in the state remains. Empirical particularities are drawn upon to understand how a socio-politically-constituted 'architecture of trust' between state and low-income parents is built, and its implications on families' lives.

Cowen, Robert (2020):

Changing comparative education. Interpreting foreigners, routinising research, and writing history.

In: *Comparative Education* 56 (1, SI), S. 127–141. DOI: 10.1080/03050068.2020.1714332.

*Abstract:*

This note is an invited post-scriptum where the 'script' is the articles in this volume. No effort will be made to summarise the articles. The intent is contemplative: to mull over how comparative education changes and, within that broad motif, to think about the role of 'our' foreigners. The mulling is self-indulgent, somewhat under-referenced - precisely because it is a mulling; but it is not inchoate. One theme that is visible in all the papers has been exaggerated, organised, and slightly extended. Within comparative education: what is 'a foreigner' and what is important about them? The article discusses the ways in which 'foreigners' are useful within university-based comparative education and, sometimes, of major importance to it. Surprisingly, this motif - asking about 'foreigners' and the intersection of personal and professional (auto-) biographies - begins to raise uncomfortable questions about the sociology of comparative education knowledge. No crisp 'conclusion' is possible but a very distinguished historian, writing about the difficulties of attaining an historical perspective, illuminates how this Special Issue may be making an unusual contribution to future histories of comparative education.

Dimmock, Clive (2020):

Connecting research and knowledge on educational leadership in the West and Asia. Adopting a cross-cultural comparative perspective.

In: *Comparative Education* 56 (2), S. 257–277. DOI: 10.1080/03050068.2019.1703393.

*Abstract:*

The field of educational leadership has yet to develop a coherent knowledge base that reflects the global diversity of policies and practices. This disconnect – for example between Asian and Western research, presents a major challenge, curtailing authentic knowledge production and transfer. Accordingly, a major objective for the field is the creation of a cross-culturally valid knowledge base with global relevance. This conceptual paper addresses the phenomenon of global knowledge construction in educational leadership and the challenges of achieving coherence and connectivity between bodies of research from diverse politico-socio-cultural settings. In achieving greater connectivity between Asian and Western educational leadership research, a cross-cultural comparative approach is advocated. A comparatively informed universal knowledge base would highlight current ethnocentricity characterizing the field, and the socio-cultural embeddedness of educational leadership. While acknowledging the benefits and challenges of such an approach, the paper advocates four types of cultural and cross-cultural comparative studies, namely, meta studies of large data sets, socio-educational studies placing leadership in a social milieu context; system reform studies based on initiatives to improve education systems; and indigenous studies of educational leadership reflecting the uniqueness of societal cultures. Finally, the paper suggests more robust research methods for achieving authentic cross-cultural connectivity across knowledge bases to secure authentic knowledge production and transfer.

Dodillet, Susanne; Christensen, Ditte Storck (2020):

Parents, a Swedish problem. On the marginalisation of democratic parental involvement in Swedish school policy.

In: *Comparative Education* 56 (3, SI), S. 379–393. DOI: 10.1080/03050068.2020.1724489.

*Abstract:*

This article proposes that the scope for parental involvement is limited in the current Swedish school system, despite its claim to the highest level of democracy and its extensive marketisation and juridification. In order to define this deficit, we

introduce the notion of democratic parental involvement. We further trace the history of the pronounced reluctance towards parents seeking to influence the education of their children in Swedish education policy since the 1940s. Three characteristic ideas in this policy are highlighted: (1) its concept of 'democratic education', (2) the idea of 'the best interest of the child' and (3) the concept of 'the professional teacher'. We argue that these strands together make the idea of democratic parental involvement being a positive force in education virtually inconceivable.

Exley, Sonia (2020):

### Selective schooling and its relationship to private tutoring. The case of South Korea.

In: *Comparative Education* 56 (2), S. 218–235. DOI: 10.1080/03050068.2019.1687230.

#### Abstract:

The notion of selecting students based on academic achievement into different schools at certain points in their educational careers is one that has long been contested in education. In this paper I consider the role selective schooling may play in driving families' demand for private tutoring – a phenomenon currently growing in many regions of the world. The paper explores the 'extreme case' of South Korea – a country with some of the highest spending on private tutoring globally and also a long history of selective schooling. Drawing on interviews with experts and key stakeholders in the Korean education system, the paper reports a number of findings. Interviewees for this project were in many respects critical of a 1970s 'equalisation' of Korean schooling, though they also viewed moves back towards selection as fuelling 'shadow education'. Concern about this has driven governments to curb selective schooling for a second time in Korean history.

Forsey, Martin (2020):

### Practicing autonomy in a local eduscape. Schools, families and educational choice.

In: *Comparative Education* 56 (3, SI), S. 423–440. DOI: 10.1080/03050068.2020.1776467.

#### Abstract:

Portraying a localised educational system as part of broader global flows of policy ideas and practices emanating from multiple sources - an eduscape- the paper focuses on family practices shaped by global policy flows and the return impact of families on the translation of these policies into local school formations. Under scrutiny are the decentralising or devolutionary directives, linked so often to choice and competition, which took hold in Western jurisdictions in the 1980s, the influences of which are still strongly felt. The conceptual links spread to a mobile 'second modernity', implicating many a family in movement associated with choices they are obliged to make, and which are often correlated to family achievement and success. The observations reported here are framed conceptually by an interest in the synthesis of Beck's individualisation thesis and Bourdieusean practice approaches in order to portray and comprehend social being and social change.

Hoang, Cuong Huu; Turner, Marianne (2020):

### Framing Vietnamese scholars' negotiation of knowledge production. A positioning perspective.

In: *Comparative Education* 56 (4), S. 565–582. DOI: 10.1080/03050068.2020.1771871.

#### Abstract:

For many years now, knowledge production at universities and in countries like Vietnam has been framed by centre/periphery discourses. In this paper, we suggest that interpreting academics' research identities in relation to these discourses can assist in understanding ways in which Vietnamese academics negotiate knowledge production. For this article, data on six participants are drawn from a qualitative study in which semi-structured interviews were used to investigate the positioning of different generations of academics working in the area of social sciences, in Vietnam or in the diaspora. Findings from this data revealed that senior researchers positioned their own local knowledge and experiences as central to what they perceived to be the betterment of Vietnam. In contrast, early and mid-career academics, especially those who studied in Western countries, looked outward to apply Western research frameworks to the Vietnamese context, placing Vietnam in a more peripheral position in the global academic community.

Kim, Terri (2020):

**Diasporic comparative education. An initial tribute to anxiety and hope.**

In: *Comparative Education* 56 (1, SI), S. 111–126. DOI: 10.1080/03050068.2020.1714328.

**Abstract:**

Many of the iconic figures in the history of comparative education were trans-national polyglot scholars. Several key thinkers and actors in the formative years of the institutionalisation of comparative education notably in London and New York were either emigre or migrant scholars (i.e. Kandel, Hans, Ulrich, Lauwerys, Bereday). There are many more transnationally- mobile academics doing comparative education these days and we do not yet have a clear Gestalt which permits us to grasp how and why they are engaged in comparative education. This article explores this general theme, not least in terms of the concept of 'the foreign'. The article wonders about and explores the theme of a 'diasporic comparative education', here taken to mean the kinds of re-thinking of comparative education undertaken by those who choose to undergo the existential and intellectual stresses of 'becoming foreign' while they embrace the professional identity of being 'comparative educationists'.

Laufer, Melissa (2020):

**Crossing academic borders. Exploring the role of social capital in academic hiring.**

In: *Comparative Education* 56 (4), S. 583–601. DOI: 10.1080/03050068.2020.1782603.

**Abstract:**

Academics are increasingly seeking employment abroad. Despite their growing number, there is limited research on how academics secure positions at foreign universities. The literature does indicate however, that academic hiring is not a standardised meritocratic process, but influenced by academic tradition and social capital. Drawing on this perspective, this study explores the role social capital plays among international and local hires at two universities (located in the U.S. and Flanders), that exhibited contrasting approaches towards recruiting foreign talent. At the U.S. university, social capital was used to counterbalance lacking elements in a candidate's curriculum vitae related to their professional experience. At the Flemish university, social capital was used to signal a candidate's compatibility with the ethos of the hiring university or system. The study demonstrates that the role social capital plays is not exclusively determined by nationality but linked to an academic's professional background which signals their insider/outsider status in the system of their employment.

Lee, Jenny J.; Vance, Hillary; Stensaker, Bjorn; Ghosh, Sowmya (2020):

**Global rankings at a local cost? The strategic pursuit of status and the third mission.**

In: *Comparative Education* 56 (2), S. 236–256. DOI: 10.1080/03050068.2020.1741195.

**Abstract:**

This study examined how hierarchical positions within the global field of higher education influence the selection of strategic priorities by universities in different parts of the world. The study particularly focused on universities' commitment to third missions as reflected in their strategic plans and compared to their global rankings. The findings demonstrate that top globally ranked institutions are generally less explicit about their commitment to the third mission relating to their geographic setting compared to mid/low and unranked institutions. Meanwhile, unranked institutions most consistently exhibit strategies in contributing to the local economy, recognising their local challenges and environment, and working for the benefit of their local community. This study informs debates on the intention and extent of the public good and missions of universities in light of the increasing dependence on ranking schemes.

Lewis, Steven (2020):

**Providing a platform for 'what works'. Platform-based governance and the reshaping of teacher learning through the OECD's PISA4U.**

In: *Comparative Education* 56 (4), S. 484–502. DOI: 10.1080/03050068.2020.1769926.

*Abstract:*

This paper addresses emerging modes of educational governance constituted through new online platforms for teacher professional development. Specifically, I focus here on the OECD's PISA4U ('PISA for you'), an online professional learning platform comprising structured assignment modules and peer-to-peer collaborative activities based on PISA insights. I critically explore how the PISA4U platform, as both a data infrastructure and a new organisational form, forges new relations between otherwise unconnected schooling spaces and actors, and creates new markets and users for the OECD's educational testing, data and professional development services. Rather than simply providing an online forum for teacher dialogue, collaboration and learning, I conclude that PISA4U problematically enables the OECD to consolidate their status as the global expert in education by providing a technical and discursive platform from which to speak to the teaching profession, which risks displacing more professionally oriented forms of teacher knowledge and expertise.

Manzon, Maria (2020):

Towards a comparative history of comparative education. A personal journey.

In: *Comparative Education* 56 (1, SI), S. 96–110. DOI: 10.1080/03050068.2019.1701251.

*Abstract:*

Action follows from being. One's way of doing and understanding comparative education follows from one's being. It springs from the soul. Using [Kim, T., and R. Brooks' (2013). "Internationalisation, Mobile Academics, and Knowledge Creation in Universities: A Comparative Analysis." SRHE Research Award (2011/12) Final Report] framework on the relationship between academic mobility and knowledge creation, I will reflect here on my personal and intellectual journey and how it has shaped my work on comparative histories of the field of comparative education. As this article is written, I am commencing a new transition in my professional life, this time in Japan. I am reflecting on a possible new research agenda building on my past work and the new panorama opened from my new vantage point in the field.

Merry, Michael S.; Boterman, Willem (2020):

Educational inequality and state-sponsored elite education. The case of the Dutch gymnasium.

In: *Comparative Education* 56 (4), S. 522–546. DOI: 10.1080/03050068.2020.1771872.

*Abstract:*

In this paper the authors examine the role the Dutch gymnasium continues to play in the institutional maintenance of educational inequality. To that end they examine the relational and spatial features of state-sponsored elite education in the Dutch system: the unique identity the gymnasium seeks to cultivate; its value to its consumers; its geographic significance; and its market position amidst a growing array of other selective forms of schooling. They argue that there is a strong correlation between a higher social class background and the concern to transmit one's cultural habitus. They further speculate on the moral implications of state-sponsored elite education, both as it concerns the specific role of the gymnasium in the reproduction of social inequality as well as the curious tendency among its supporters to rationalise the necessity of its existence.

Pagliarello, Marina Cino (2020):

Aligning policy ideas and power. The roots of the *competitiveness frame* in European education policy.

In: *Comparative Education* 56 (4), S. 441–458. DOI: 10.1080/03050068.2020.1769927.

*Abstract:*

How and why do some ideas attain agenda status while others do not? This paper seeks to explore these questions in the context of the policy changes observed in European education policy. By drawing from the literature on agenda-setting and employing process tracing, the paper develops a theoretical argument to investigate the causal mechanisms through which a new problem definition is set. The central argument is that three factors affect how a problem definition wins over another: (i) the presence of a policy entrepreneur; (ii) the ability to construct a convincing narrative to support a particular interpretation of a problem; and (iii) the specific zeitgeist of a given period, namely the social and political context within

which ideas gain ground. The paper contributes to the literature on European education policy by examining how ideas about education emerged. It also contributes to the theoretical debate on agenda setting studies.

Pashby, Karen; Da Costa, Marta; Stein, Sharon; Andreotti, Vanessa (2020):

### A meta-review of typologies of global citizenship education.

In: *Comparative Education* 56 (2), S. 144–164. DOI: 10.1080/03050068.2020.1723352.

#### Abstract:

This paper reports on a reflexive exercise contributing a meta-mapping of typologies of GCE and supplementary analysis of that mapping. Applying a heuristic of three main discursive orientations reflected in much of the literature on GCE - neoliberal, liberal, and critical - and their interfaces, we created a social cartography of how nine journal articles categorise GCE. We found the greatest confluence within the neoliberal, greatest number within the liberal, and a conflation of different 'types' of GCE within the critical orientation. We identified interfaces between neoliberal-liberal and liberal-critical orientations as well as new interfaces: neoconservative-neoliberal-liberal, critical-liberal-neoliberal, and critical-post critical. Despite considerable diversity of GCE orientations, we argue GCE typologies remain largely framed by a limited range of possibilities, particularly when considered as implicated in the modern-colonial imaginary. In a gesture toward expanding future possibilities for GCE, we propose a new set of distinctions between methodological, epistemological, and ontological levels.

Powell, Justin J. W. (2020):

### Comparative education in an age of competition and collaboration.

In: *Comparative Education* 56 (1, SI), S. 57–78. DOI: 10.1080/03050068.2019.1701248.

#### Abstract:

Comparative education relies on experiences, expertise, data, and criticism derived from multiple contexts and diverse levels to generate insights, facilitate understanding, and explain change. Marked by connectivity, our contemporary era vastly increases the (potential) diffusion of ideas essential for scientific advance. Three interlocking trends emphasise the growing relevance of comparative educational research. Firstly, competition has become more potent - among scholars, their organisations, and within as across countries. Secondly, educational studies, as science more generally, are increasingly conducted in collaboration - across disciplinary, cultural, linguistic, and organisational boundaries - enhancing the potential for discovery while producing influential scholarship. Thirdly, while educational research and policymaking are increasingly comparative, comparative knowledge stores are often only selectively used. To counter such reductionism, in-depth comparative institutional analysis across divides of academy, politics, and practice remain crucial. The multidisciplinary field must claim its relevance more persuasively, even as scholarly exchange, mobilities, and cultural knowledge endure as vital foundations.

Rapple, Jeremy (2020):

### Comparative education as cultural critique.

In: *Comparative Education* 56 (1, SI), S. 39–56. DOI: 10.1080/03050068.2019.1701247.

#### Abstract:

Relating my experience of becoming a 'foreign' comparativist, I offer a vision of comparative education that both extends and challenges the field. It continues the work of Bereday and Lauwerys who sought to make visible the 'contrasting colours of the world' in order to affect deep self-reflection and imagine alternatives. But it also challenges that earlier iteration: calling for a drastic widening of the imaginative kosmos, an exorcising of our enduring Hegelian worldview, and more skilled work in bringing differences 'home'. It underscores the need for new modes of engagement: earnestness, humility, self-overcoming. Our time of heightened transnational academic mobility makes this sort of work practically possible for the first time, but the field's full potential to affect intellectual paradigms will occur only when we become immigrants of being.

Rapplee, Jeremy; Komatsu, Hikaru (2020):

**Towards (comparative) educational research for a finite future.**

In: *Comparative Education* 56 (2), S. 190–217. DOI: 10.1080/03050068.2020.1741197.

**Abstract:**

Educational scholars, particularly those working in comparative education, have largely failed to recognise, let alone discuss, the impending finite-ness of global resources. The field continues to operate on an assumption of infinite resources, an implicit cultural horizon in place since at least the Western Enlightenment. It has missed the epochal shift that is now upon us; unable to contribute to the deep transformation of research and practices that has now become urgent. Herein we discuss how such concerns might be addressed, suggesting an approach that centres ontological alterity through comparative method as means of making the turn towards a sustainable future.

Rowley, Kristie J.; Edmunds, Chrisse C.; Dufur, Mikaela J.; Jarvis, Jonathan A.; Silveira, Florencia (2020):

**Contextualising the achievement gap. Assessing educational achievement, inequality, and disadvantage in high-income countries.**

In: *Comparative Education* 56 (4), S. 459–483. DOI: 10.1080/03050068.2020.1769928.

**Abstract:**

We examine the disparities in educational outcomes for high income countries as they are reported by the Programme for International Student Assessment (PISA), with a specific emphasis on a more nuanced exploration of SES-based achievement gaps. To explore differences in the educational inequality and disadvantages associated with SES-based achievement gaps by country, we analyze three measures: overall average performance, educational inequality (or achievement gaps), and educational disadvantage (comparative achievement gap patterns). We find that, when examined together, these three measures are instructive for understanding the differences in educational outcomes across countries. Our findings offer insight into the PISA results that go beyond average achievement. We recommend that country-level averages should not be emphasised or interpreted without also considering educational inequality and disadvantage.

Shuffelton, Amy (2020):

**What parents know. Risk and responsibility in United States education policy and parents' responses.**

In: *Comparative Education* 56 (3, SI), S. 365–378. DOI: 10.1080/03050068.2020.1724490.

**Abstract:**

In this special issue exploring parents' responses to neoliberal policy changes, especially shifting notions of risk and responsibility, this article provides a historical account of local and national policy initiatives in the contemporary United States that have increased risk and placed responsibility for this risk on the shoulders of parents (as well as educators). The opening section of the paper reviews major recent policy documents and initiatives in the United States, from the landmark 1983 report 'A Nation at Risk' to the current age of test-based accountability. In the following sections, the paper explores what two Chicago parents themselves had to say about risk and responsibility in public schooling. What, in their views, were the actual risks? What did they think their responsibilities were, as parents? What did they do in response to the shifting policy landscape?

Silova, Iveta; Auld, Euan (2020):

**Acrobats, phantoms, and fools. Animating comparative education cartographies.**

In: *Comparative Education* 56 (1, SI), S. 20–38. DOI: 10.1080/03050068.2019.1701246.

**Abstract:**

Acrobats, phantoms, and fools. Such experiences often stem from our attempts to 'fit' into the official cartography of Comparative Education, which reflects a particular reading of the formation of knowledge and knowing subjects in the field. Rather than viewing cartographies as universal, we reframe them as embodied and embedded. Combining reflections on

our own intellectual journeys in Comparative Education with those of other scholars and fictive characters, we move across time and space to develop a collective biography that explores our interwoven positionalities. We begin by outlining both the parallel lines along which our biographies have unfolded and their various points of intersection. We then present a series of generic scholarly experiences that shape our collective biographies and the field's boundaries. Our own recollections are entangled with experiences and voices of 'Others' who did not appear at the time or perhaps were present but remained beyond our horizon. Animating our-selves by entering into these relationships with 'Others' enables us to reclaim plurality in the very structure of the field's cartography and our own biographies. This in turn provokes reflection on the implications for doing comparative education, especially in relation to encountering 'otherness' or 'foreignness'. In closing, we suggest that embracing the contradictory vistas opened by such entanglements can help enhance the field's mobility, as well as our own.

Sriprakash, Arathi; Maithreyi, R.; Kumar, Akash; Sinha, Pallawi; Prabha, Ketaki (2020):

#### Normative development in rural India. 'School readiness' and early childhood care and education.

In: *Comparative Education* 56 (3, SI), S. 331–348. DOI: 10.1080/03050068.2020.1725350.

##### Abstract:

Global education agendas frequently draw on the construct of 'school readiness', indexing the developmental trajectories of children to the expectations of school systems. Through in-depth ethnographic research in a village in Bihar, India, this paper examines how normative discourses of 'school readiness' govern family strategies for early childhood care and education (ECCE). To navigate the demands of a competitive and socially stratified school system, marginalised families saw it as crucial for their young children to access multiple forms of educational capital: written literacy, discipline, and dominant caste-class codes. In the absence of functioning provision of ECCE by the state, the low-fee and low-quality private market of early childhood education was seen as a key site through which 'school readiness' could be secured. The paper illustrates how normative developmentalism in education, and the 'hegemonic aspirations' it enshrines, has entrenched the marketisation of ECCE and reinscribed forms of caste-class domination.

Takayama, Keita (2020):

#### An invitation to 'negative' comparative education.

In: *Comparative Education* 56 (1, SI), S. 79–95. DOI: 10.1080/03050068.2019.1701250.

##### Abstract:

In this paper, I reflect upon my journey of learning to do comparative education research over the last decade and half. It involves transnational moves from Japan, Canada, US, Australia and back to Japan where I encountered numerous 'others'. I use my story of a series of relocations as an entry point for theorising what I mean by 'negative' comparative education. Drawing on Andrea English and the Kyoto School of Philosophy, I use the term 'negativity' in the philosophical sense. That is, it refers to affective experiences of discomfort, perplexity and confusion as an important catalysis for generative learning and unlearning. It is a story of learning to let go of the familiar language and frame of seeing the world and embracing disruption as a critical moment for new learning. In conclusion, I argue that negative comparative education offers a methodological stance that enables us to undertake comparative research in a manner that challenges the Eurocentric geopolitics of knowledge and hence to contribute to the pluriverse world.

Unterhalter, Elaine (2020):

#### An other self? Education, foreignness, reflexive comparison and capability as connection.

In: *Comparative Education* 56 (1, SI), S. 3–19. DOI: 10.1080/03050068.2019.1701245.

##### Abstract:

The article is an attempt to explore through the lens of my identification as a foreigner, a number of different themes around work in comparative education, particularly aspects of the question of method, and some reflections on the relationship with education and international development. The discussion begins with some reflection on internal or external foreignness, and the ways in which these identifications within my autobiography are heterodox, not singular and

co-constructed with many relationships, changing over time. Some different formulations of pluralism and engagements with the capability approach are discussed drawing out some of the resources they provide for exploring approaches in comparative education. In the final section, some features of the idea of reflexive comparison as a methodological resource are sketched.

Verger, Antoni; Moschetti, Mauro C.; Fontdevila, Clara (2020):

How and why policy design matters. Understanding the diverging effects of public-private partnerships in education.

In: *Comparative Education* 56 (2), S. 278–303. DOI: 10.1080/03050068.2020.1744239.

*Abstract:*

Despite Public-Private Partnerships' (PPPs) growing popularity within education policy circles, research on their effects yields contradictory results. The understanding of PPP effects is limited by the prevalence of generalist analyses that neglect to acknowledge the exceptional heterogeneity of the policy frameworks in which PPPs crystallize. Building on a scoping literature review, this paper aims at identifying patterns of effects of main PPP modalities on education (namely vouchers, charter schools and public subsidies for private schools) by considering the mediating role of policy-design variables. Our results show that PPP configurations oriented at the generation of market-like dynamics are frequently found to exacerbate school segregation and educational inequalities. Conversely, those PPP arrangements less conducive to market competition and those that follow an affirmative action rationale (such as targeted vouchers) are more likely to yield more positive effects on learning outcomes than other types of PPPs, without necessarily undermining equity.

Vickers, Edward (2020):

Critiquing coloniality, 'epistemic violence' and western hegemony in comparative education – the dangers of ahistoricism and positionality.

In: *Comparative Education* 56 (2), S. 165–189. DOI: 10.1080/03050068.2019.1665268.

*Abstract:*

Claims regarding Western neo-colonial domination over scholarship in Comparative and International Education (CIE) have recently commanded much attention – for example in a 2017 special issue of the journal *Comparative Education Review* (CER) on the theme of 'contesting coloniality.' Stressing their marginal 'positionality,' the contributors to that special issue relate their critique to a narrative of 'epistemic violence' seen as underpinning 'Western' or 'Northern' hegemony in the CIE field and beyond. Adopting a historical perspective, I argue here that positing a dichotomy between a colonialist 'Western modernity' and a uniformly victimised 'non-West' is empirically unsustainable, and involves its advocates in propagating just the kind of essentialism and Eurocentrism that they condemn. I also argue that the centrality of 'positionality' and 'opacity' in postcolonialist or decolonial arguments, as expounded in the CER special issue, impedes meaningful and constructive scholarly dialogue. Scholarship in this vein threatens to divide the CIE field, undermine its wider credibility and distract from analysis of the pressing problems that confront us today. Comparativists need to balance critical scholarship concerning the implications of 'colonialism' with greater attention to the comparative study of its history.

Xiaomin, Li; Auld, Euan (2020):

A historical perspective on the OECD's 'humanitarian turn'. PISA for Development and the Learning Framework 2030.

In: *Comparative Education* 56 (4), S. 503–521. DOI: 10.1080/03050068.2020.1781397.

*Abstract:*

This paper identifies OECD's shifting agendas and approaches to education since inception and distinguishes three time periods. Each of these periods reflects shifting geopolitical and economic realities that shaped OECD's priorities and modes of operation. They also demonstrate the adaptive capacity and expansionist nature of OECD's education work as it successfully innovates, finds market niches and adds new dimensions to its datasets. These have culminated in its recent strategic initiatives, namely: PISA for Development and the Learning Framework 2030. The former aims to adapt PISA to fit



into low- and middle-income countries and serve as the global learning metric; and the latter aims to incorporate non-cognitive competencies into its main tests. Together they are designed to expand and consolidate the Organisation's influence in the context of the SDGs. By adopting a historical perspective, we provide a critical understanding of OECD's shifting role in global education governance and its 'humanitarian turn'.

## Reviews

Auld, Euan (2020):

The world yearbook of education 2019: Comparative methodology in the era of big data and global networks, edited by Radhika Gorur, Sam Sellar and Gita Steiner-Khamsi, New York, Routledge, 2018, 244 pp., £120.00 (hbk), £36.99 (pbk), £22.50 (ebk), ISBN: 978-1-138-55072-8 (hbk), ISBN: 978-0-367-48778-4 (pbk), ISBN: 978-1-315-14733-8 (ebk).

[Review]. In: *Comparative Education* 56 (2), S. 307–310. DOI: 10.1080/03050068.2020.1746093

Cowen, Robert (2020):

North American scholars of comparative education: examining the work and influence of notable 20th century comparativists, edited by Erwin H. Epstein (Oxford Studies in Comparative Education, Series editor: David Phillips), London and New York, Routledge, 2020, 204 pp., US\$ 124 (hardback), ISBN: 978-0-367-25690-6. ISBN 978-0-429-28918-7 (e-book) US\$55.

[Review]. In: *Comparative Education* 56 (4), S. 603–607. DOI: 10.1080/03050068.2020.1800166.

Grey, Sue (2020):

World class: how to build a 21st-century school system: strong performers and successful reformers in education, by Andreas Schleicher, Paris, OECD Publishing, 2018, 304 pp., (PDF) <https://doi.org/10.1787/9789264300002-en>. £12.00 hard copy, or free to download, ISBN 9789264300002.

[Review]. In: *Comparative Education* 56 (2), S. 305–307. DOI: 10.1080/03050068.2020.1741792.

Kim, Terri (2020):

Affect theory and comparative education discourse. Essays on fear and loathing in response to global educational policy and practice, by Irving Epstein, London and New York, Bloomsbury Academic, 2019, 219 pp., £90 (hardback), ISBN HB: 979-1-3500-4360-2.

[Review]. In: *Comparative Education* 56 (4), S. 602–603. DOI: 10.1080/03050068.2020.1797297.

Li, Xiaomin (2020):

The OECD's historical rise in education: the formation of a global governing complex, edited by Christian Ydesen, London, UK, Palgrave Macmillan, 2019, 308 pp., £109.99 (hardback), ISBN 978-3-030-33798-8.

[Review]. In: *Comparative Education* 56 (4), S. 609–610. DOI: 10.1080/03050068.2020.1769825.

Morris, Paul (2020):

The world yearbook of education 2020. Schooling, governance and inequalities, edited by Julie Allen, Valerie Harwood and Clara Rübner Jørgensen, New York, Routledge, 2020, 254 pp., £96, Hardcover, ISBN: 978-1-138-36263-5.

[Review]. In: *Comparative Education* 56 (4), S. 610–612. DOI: 10.1080/03050068.2020.1769824.

Tarc, Paul (2020):

The Machinery of School Internationalisation in Action: Beyond the Established Boundaries, edited by Laura C. Engel, Claire Maxwell, Miri Yemini, London, Routledge, 2019, 188 pp., £110 (hardback), ISBN: 978-0-367-23587-1.

[Review]. In: *Comparative Education* 56 (4), S. 607–608. DOI: 10.1080/03050068.2020.1769925.

Turner, David (2020):

Understanding PISA's attractiveness: critical analyses on comparative policy studies, edited by Florian Waldow and Gita Steiner-Khamisi, Bloomsbury Academic, 2019, London and New York, 255 pp., £81-00 (hardcover), ISBN 978-1-3500-5728-9.

[Review]. In: *Comparative Education* 56 (2), S. 304–305. DOI: 10.1080/03050068.2020.1741803.

Unterhalter, Elaine (2020):

Skills for Human Development: Transforming Vocational Education and Training / Education for Sustainable Development in the Postcolonial World: Towards a Transformative Agenda for Africa by L. J. Powell and S. McGrath, Abingdon, Routledge, 2019, hardback £120 (190 pp) ISBN 9781138100572 ; paperback £34.99 ISBN 9780367182151 by L. Tikly, Abingdon, Routledge, 2020, hardback £120 (264 pp) ISBN 9780415792943; paperback £31.49 ISBN 9780515792967.

[Review]. In: *Comparative Education* 56 (2), S. 310–313. DOI: 10.1080/03050068.2020.1744233.

## Specials

Cowen, Robert (2020):

Professor emeritus Dr. Philos. Thyge Winther-Jensen.

[Obituary]. In: *Comparative Education* 56 (2), S. 314–315. DOI: 10.1080/03050068.2020.1744882.

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## Editorials

Nordtveit, Bjorn H. (2020):

The Press behind the Review: On the Relationship between the *Comparative Education Review* and the University of Chicago Press.

[Editorial]. In: *Comparative Education Review* 64 (3), S. 356–362. DOI: 10.1086/709747.

## Original Articles

Abadzi, Helen (2020):

Accountability Features and Their Implications for Education Policies.

In: *Comparative Education Review* 64 (1), S. 66–86. DOI: 10.1086/706822.

*Abstract:*

Despite significant investments, lower-income countries face a learning crisis. A clamor has thus arisen worldwide for greater accountability of those involved in service delivery. To obtain new insights, the UNESCO Global Education Monitoring Report was dedicated to accountability in 2017, and the research on this topic was reviewed. A summary is published herein. Accountability seems strongest in explicit hierarchies with direct principal-agent relations, as in an army, and when individual contributions are identified. It is enhanced when tasks are clearly defined, information is sufficient, and sanctions for violators are significant and credible. People may demonstrate better judgment if they are accountable for procedures, such as teachers using class time efficiently. By contrast, accountability for difficult outcomes, such as students' actual memory consolidation, results in avoidance and efforts to limit one's role. Conditions inherent in the education sector may compromise accountability. Government officials, who frequently change, are accountable to groups, whose staff and consultants also change. At the school level, parents rarely have principal-agent relations with staff, so the latter may feel little obligation to teach. In complex organizational settings, accountability could be enhanced by identifying individual contributions to a task, providing comparison standards, imposing significant and enforceable sanctions, and focusing on processes and decisions rather than strictly on outcomes. The Sustainable Development Goals will be more easily fulfilled if governments and donors can mitigate the effects of this little-understood phenomenon.

Barrera-Osorio, Felipe; Barros, Andreas de; Dryden-Peterson, Sarah; Mulimbi, Bethany; Nakajima, Nozomi; Uccelli, Paola (2020):

Levers for Learning: Relationships between School-Level Factors and Literacy Outcomes in Low-Income Schools in Colombia.

In: *Comparative Education Review* 64 (2), S. 269–298. DOI: 10.1086/708431.

*Abstract:*

This study examines the relationships between school processes and literacy in public schools that serve low-income families in a midsize city in Colombia. We focus on four categories of school processes: instructional practice; school-community engagement; well-being of students, teachers, and parents; and community belonging. We present two key

results. First, we find considerable variation in literacy performance across schools, despite serving students with similar family background characteristics. Second, we find community belonging to be the most salient school process for predicting literacy. Among measures of community belonging, higher levels of students' sense of belonging and lower levels of bullying were associated with higher literacy. This study contributes to the field of international and comparative education by highlighting the importance of relational and interpersonal dimensions of school processes for children's learning. Our study also demonstrates the value of adopting an interdisciplinary lens that combines economics, child development, and sociology to better understand the links between school processes and student learning.

Boyle, Mary-Ellen (2020):

### Liberal Education across Continents: Transfer Elasticity and US Influence.

In: *Comparative Education Review* 64 (2), S. 207–227. DOI: 10.1086/708178.

#### Abstract:

This essay considers the variants of liberal education that have arisen outside of the United States, conceptualizing liberal education as a loosely transferred “ideal type” and the United States as a “reference society.” The geopolitical framings (i.e., American style, European model, Asian approach) that differentiate global liberal education are explored, and I argue that these labels are revealing in terms of location and legitimacy but less useful with respect to understanding the educational transfer that has been occurring. I analyze the loose coupling asserted in theories of educational borrowing, calling attention to the possibilities and limits of the geopolitical framing, and responding to the spatial reconsideration being called for in the comparative education field.

Bray, Mark; Kobakhidze, Magda Nutsa; Suter, Larry E. (2020):

### The Challenges of Measuring Outside-School-Time Educational Activities, Experiences and Lessons from the Programme for International Student Assessment (PISA).

In: *Comparative Education Review* 64 (1), S. 87–106. DOI: 10.1086/706776.

#### Abstract:

Recent years have brought a major shift in the field of international comparative education with the rise of quantitative assessments of student achievement. Within these studies, outside-school-time (OST) as a supplement and complement to schooling has been included. However, OST is difficult to define and measure; and challenges multiply when comparisons are made across countries and cultures. The Programme for International Student Assessment (PISA) managed by the Organisation for Economic Cooperation and Development (OECD) has sought to confront these challenges. It has had some success, and the 2015 PISA iteration showed advances over its predecessors; but it also showed significant shortcomings. With a methodological thrust, this article examines the challenges of preparing appropriate questions in English, translating those questions into other languages, and preparing meaningful cross-national comparisons. The article has pertinence not only within the specific domain of OST studies but also the wider thrusts of quantification in international comparisons.

Brissett, Nigel O. M. (2020):

### Teaching like a Subaltern. Postcoloniality, Positionality, and Pedagogy in International Development and Education.

In: *Comparative Education Review* 64 (4), S. 577–597. DOI: 10.1086/710694.

#### Abstract:

International development and education are often described as embodying colonized, capitalist, and modernist knowledge and practices. I take the position that as educators, our identities and positionalities, while not determinant, do affect our pedagogy of knowledge (re)production in these fields. Using critical autoethnography as methodology, and drawing on postcolonial theory, I explore how my experiences and positionality as an educator of color from the Global South influence my content and pedagogical practices in an international development and education program in a North American university. I discuss and analyze the diversity of content I select, my pedagogical approaches, and how I use my

personal experiences from the Global South as teaching tool. I argue that as educators, our experiences do matter in ways that move beyond essentialism to enrich the learning experiences.

Cardoso, Manuel Enrique (2020):

### Policy Evidence by Design. International Large-Scale Assessments and Grade Repetition.

In: *Comparative Education Review* 64 (4), S. 598–618. DOI: 10.1086/710777.

#### Abstract:

Links between international large-scale assessment (ILSA) methodologies, international organization (IO) ideologies, and education policies are not well understood. Framed by statistical constructivism, this article describes two interrelated phenomena. First, OECD/PISA and UNESCO/TERCE documents show how IOs' doctrines about the value of education, based on either Human Capital Theory or Human Rights, shape the design of the ILSAs they support. Second, quantitative analyses for four Latin American countries show that differently designed ILSAs disagree on the effectiveness of a specific policy, namely, grade retention: PISA's achievement gap between repeaters and nonrepeaters doubles TERCE's. This matters and warrants further research: divergent empirical results could potentially incentivize different education policies, reinforce IOs' initial policy biases and provide perverse incentives for countries to modulate retention rates or join an ILSA on spurious motivations. In summary, ILSA designs, shaped by IOs' educational doctrines, yield different data, potentially inspiring divergent global policy directives and national decisions.

Carhill-Poza, Avary; Williams, Timothy P. (2020):

### Learning “Anytime, Anywhere”? The Imperfect Alignment of Immigrant Students’ Experiences and School-Based Technologies in an Urban US High School.

In: *Comparative Education Review* 64 (3), S. 428–450. DOI: 10.1086/709430.

#### Abstract:

Across many education systems, technologies like computers and tablets are now ubiquitous. But the mere presence of these technologies is insufficient to improve learning, and implementation without careful thought may reinforce inequalities for disenfranchised groups such as immigrant children and youth. In the United States, immigrant students comprise a sizable portion of classrooms. However, little is known about how the experiences of immigrant youth inform their learning with school-based technologies. The present study was carried out over a 3-year period in an urban secondary school. It analyzes qualitative fieldwork data to understand how immigrant students' lived experiences affected their engagement with school-based technologies and how teachers sought to respond to students. Findings challenge the idea that technology unproblematically supports all students in learning “anytime, anywhere” and highlights the way that factors such as work, language, and family resources shape how technology is used for learning by immigrant youth.

Datt, Gaurav; Wang, Liang Choon (2020):

### Schooling and Learning Deficits. A Simple Unified Measurement Framework.

In: *Comparative Education Review* 64 (3), S. 470–497. DOI: 10.1086/709450.

#### Abstract:

There exists no unified measurement framework that encompasses and integrates schooling and learning deficits—arguably the two most important education challenges in most developing countries. This article offers a methodology that fills this gap. Using the notions of age-appropriate grade, actual grade, and effective grade for a school-age child, we develop an integrated framework offering a range of schooling, learning, and education deprivation measures that also build in distributional considerations. The article illustrates the value added of the measurement framework for education policy and evaluation with an application to data for India and Kenya.

Diaz Rios, Claudia Milena (2020):

### The Role of Policy Legacies in the Alternative Trajectories of Test-Based Accountability.

In: *Comparative Education Review* 64 (4), S. 619–641. DOI: 10.1086/710767.

#### Abstract:

National large-scale assessments (NLSA) have spread rapidly since the 1990s, but contrary to arguments of diffusion theories, not every country with large-scale assessments develop test-based accountability (TBA). The diverse-case comparison presented in this article demonstrates that the interaction between global pressures and domestic policy legacies produces a variety of uses of standardized tests. Foreign training of experts and a strong assessment tradition made TBA flourish in Chile when supporters could avoid the consequences of accountability and opposition was weak. Despite similar assessment traditions, Colombia developed soft accountability because of the lack of incentives to redistribute education responsibilities, and strong teacher opposition. Argentina rejected accountability because testing had limited legitimacy, governments avoided responsibility for results, and teachers opposed TBA. Findings suggest two lessons: testing expansion does not indicate convergence toward TBA, and we need further exploration of the feasibility and effects of alternative uses of NLSA to promote quality.

Gonzalez Espitia, Carlos Giovanni; Ochoa Diaz, Hector; Solano Castillo, Nathalia (2020):

### Understanding the Spatial and Temporal Effect of Economic Activity on the Quality of Education. Evidence from Colombia.

In: *Comparative Education Review* 64 (4), S. 642–669. DOI: 10.1086/710765.

#### Abstract:

This study estimates the effects of economic activity on the quality of education in various regions of Colombia. To estimate this effect, we first calculate an index of quality of education. Second, we use a spatial regression model to estimate the effect of the spatial heterogeneity of the regions on this index of quality. Third, we use a dynamic data panel methodology and instrumental variables to estimate a causal relationship, where electricity consumption data and light intensity from satellite images are used to measure the economic activity. The principal results show that economic activity has a positive effect on the quality of education and the effects are persistent over time. However, the effects of the previous quality of education on current quality disappear over time. Therefore, the quality of education does not reproduce endogenously in time. These findings have practical implications for research on education and for comparative education.

Higgins, Sean; Novelli, Mario (2020):

### Rethinking Peace Education: A Cultural Political Economy Approach.

In: *Comparative Education Review* 64 (1), S. 1–20. DOI: 10.1086/706759.

#### Abstract:

Through a case study of a peace education intervention in postwar Sierra Leone, this article seeks to contribute to the ongoing critique of dominant peace education approaches that seek attitudinal and behavioral change in conflict-affected societies. Specifically, the article interrogates “Emerging Issues,” a curriculum intervention developed in 2007–8 by UNICEF for teachers in Sierra Leone. It applies the analytical framework of Cultural Political Economy, an interdisciplinary theoretical current that extends traditional concerns of political economy with power and institutions to show their interaction with cultural processes of meaning making. The insights suggest that this approach to peace education might not be as benign as projected. Instead, we assert that it promotes a form of pacification derived from a decontextualized curriculum that treats victims as guilty and in need of attitudinal and behavioral change, while avoiding engagement with the structural and geopolitical drivers that underpin many contemporary conflicts.

Kirchgassler, Christopher; Desai, Karishma (2020):

### “Girl” in Crisis. Colonial Residues of Domesticity in Transnational School Reforms.

In: *Comparative Education Review* 64 (3), S. 384–403. DOI: 10.1086/709552.

*Abstract:*

Investment in girls' education is offered as a salve to the Global South that will alleviate poverty, prevent terrorism, and curb gender-based violence. Rather than treat this thesis and its evidentiary basis as axiomatic, we examine some of the conditions for the intelligibility of this crisis, prevalent in much international development and education reform discourse today. Archival study of transnational school reforms in Kenya Colony-specifically the Jeanes School in the 1920s and 1930s and Mau Mau prison camp reeducation in the 1950s and 1960s-makes visible how domesticity has offered a shifting biopolitical strategy, wherein acceding to one's properly gendered roles was made a condition for economic and political maturity for racialized populations. We explore how residues of colonial domesticity persist in the exceptionalism of the girl, yoking the performance of "proper" notions of modern girl and womanhood as conditions for social progress and economic development.

Klees, Steven J.; Ginsburg, Mark; Anwar, Hiba; Robbins, Melanie Baker; Bloom, Heidi; Busacca, Cameron et al. (2020):

### The World Bank's SABER. A Critical Analysis.

In: *Comparative Education Review* 64 (1), S. 46–65. DOI: 10.1086/706757.

*Abstract:*

The World Bank's Systems Approach for Better Education Results (SABER) purports to benchmark developing country education systems against global best practices. SABER covers 13 topics, called "domains," and has produced over 16,000 indicators of what the Bank considers best practice and applied them in over 130 countries. Yet this massive effort has received hardly any critical scrutiny. In this article, we argue that this search for global best practice is fundamentally flawed. We apply Gita Steiner-Khamsi's three facades of universality, precision, and rationality to problematize the search for best practice, both in general and specifically in SABER. We then critique the Bank's analysis of three of SABER's 13 domains: Teachers, School Autonomy and Accountability, and Engaging the Private Sector. We conclude by connecting this to broader critiques of the Bank and some of the new directions envisioned for SABER.

Mitchell, Rafael; Rose, Pauline; Asare, Samuel (2020):

### Education Research in Sub-Saharan Africa. Quality, Visibility, and Agendas.

In: *Comparative Education Review* 64 (3), S. 363–383. DOI: 10.1086/709428.

*Abstract:*

This article combines large-scale bibliometric analysis of publications on education by researchers based in sub-Saharan Africa with researchers' accounts of their priorities and practice. Patterns in the thematic foci of the research from 48 countries in the region are considered from the perspective of international policy statements (the Education Sustainable Development Goal and the African Union's Agenda 2063), alongside analysis of funding, coauthorship, and citations. We find a large number of publications by these scholars in reputable journals that merit greater scholarly engagement. Furthermore, evidence presented in this article challenges claims about the dominance of Northern research agendas in sub-Saharan Africa.

Moussa, Wael; Omoeva, Carina (2020):

### The Long-Term Effects of Universal Primary Education: Evidence from Ethiopia, Malawi, and Uganda.

In: *Comparative Education Review* 64 (2), S. 179–206. DOI: 10.1086/708144.

*Abstract:*

This article investigates the rollout of universal primary education (UPE) policies in Ethiopia, Malawi, and Uganda to assess their long-term causal effects on schooling attainment. Consequently, we employ a fuzzy regression discontinuity design (RDD) to assess the effect that increased schooling helps lower adolescent sexual activity, marriage, and births, as well as adult labor force activity among women. Our findings show that the UPE policies were effective in increasing educational attainment across all three countries between 0.6 and 1.5 years of completed schooling. Additionally, we show that increased schooling induced by UPE had lowered sexual activity, child birth, and marriage rates during adolescence. We find that the effects of schooling do not significantly improve labor force participation and employment.



Murphy-Graham, Erin; Cohen, Alison K.; Montoya, Diana Pacheco (2020):

### School Dropout, Child Marriage, and Early Pregnancy among Adolescent Girls in Rural Honduras.

In: *Comparative Education Review* 64 (4), S. 703–724. DOI: 10.1086/710766.

#### Abstract:

This article examines intersections between schooling, child marriage, and adolescent pregnancy in a longitudinal, mixed-methods study of Honduran girls. It explores (a) girls' enrollment and dropout of school patterns and how these relate to timing of marriage and/or childbirth, (b) the factors associated with dropout, early marriage, and/or early childbearing, and (c) reenrollment patterns after marriage/childbirth. We find that household income in early adolescence predicts school dropout, early union, and early childbearing. Most girls discontinued their studies due to lack of financial resources or no longer wanting to be a student rather than due to marriage or motherhood. Only a small percentage return to school. This study can inform the timing and nature of efforts to protect girls and increase their chances of successfully completing secondary school, delaying marriage, and preventing early pregnancy.

Ninkova, Velina (2020):

### Perpetuating the Myth of the “Wild Bushman”: Inclusive Multicultural Education for the Omaheke Ju|’hoansi in Namibia.

In: *Comparative Education Review* 64 (2), S. 159–178. DOI: 10.1086/708177.

#### Abstract:

Namibia has adopted an inclusive education policy with emphasis on cultural and linguistic diversity. The policy encourages educators to adapt the curriculum and include content that reflects the cultural background of their learners. Despite these positive provisions, severely marginalized groups, such as the Omaheke Ju|’hoansi, continue to underperform and drop out of school at greater rates than learners from other groups. This article is based on ethnographic work in eight primary schools in east central Namibia and explores how educators understand and treat Ju|’hoan culture in schools. Analysis of the data points to preoccupation with superficial cultural differences that further marginalize Ju|’hoan learners. The study discusses the challenges of multicultural education for severely marginalized groups and questions its applicability in a highly segregated society.

Pesando, Luca Maria; Wolf, Sharon; Behrman, Jere R.; Tsinigo, Edward (2020):

### Are Private Kindergartens Really Better? Examining Preschool Choices, Parental Resources, and Children’s School Readiness in Ghana.

In: *Comparative Education Review* 64 (1), S. 107–136. DOI: 10.1086/706775.

#### Abstract:

Low-cost private schools are expanding across sub-Saharan Africa and are often perceived by parents to be of better quality than public schools. This article assesses the interplay between kindergarten (or preschool) choice, household resources, and children’s school readiness in Ghana. We examine how child, household, and school characteristics predict private versus public kindergarten attendance and whether household characteristics are associated with school readiness beyond preschool selection. Using a geospatial-identification strategy to account for observed and unobserved determinants of preschool choice, we find that parental investments—including number of books at home and caregiver help with homework—predict both private-preschool selection and start-of-year child outcomes beyond their influence on preschool choice. We take this evidence as suggesting that investments in children support learning beyond simply selecting the presumed best preschool type. We also find independent associations between attending private preschool and one-year changes in early literacy scores. The findings contribute knowledge to the literature on the recent expansion of preschool education in sub-Saharan Africa and globally and shed new light on the role of private-preschool attendance in early academic skill development.

Phillips, Aprille J. (2020):

### State-Directed Intervention in the Santee Dakota Sioux Nation. A Comparative Case?

In: *Comparative Education Review* 64 (3), S. 451–469. DOI: 10.1086/709466.

#### Abstract:

Historically, education policy has frequently framed American Indians, a contested term long-used to describe peoples indigenous to the United States, through a deficit-lens as “other.” While CER publishes research that looks at other countries as a point of analysis, rarely has it included articles that compare supposedly internally autonomous territories (like American Indian reservations) to the so-called mainstream systems that surround them. This vertical case study explores how a state department of education applied a comparative lens when implementing a school accountability system and intervening in a priority school located on an American Indian reservation. The study finds that policy makers, comparative education researchers, and the field of comparative education have roles to play in attending to the sociocultural and sociohistorical contexts of policy implementation and committing to work in “Third Spaces” where official policy knowledge and the local knowledge to come together in transformational ways.

Ridge, Natasha; Jeon, Soohyun (2020):

### Father Involvement and Education in the Middle East. Geography, Gender, and Generations.

In: *Comparative Education Review* 64 (4), S. 725–748. DOI: 10.1086/710768.

#### Abstract:

Drawing on original data on father involvement from a study of 1,684 respondents in 10 Middle Eastern countries, this article explores the intersection of father involvement with gender, geography (Gulf Cooperation Council [GCC] vs. non-GCC), and generations, with educational attainment. To examine these relationships, we conducted a series of ANOVAs and regressions, supplemented with qualitative interview data. Overall, we find that fathers are perceived to be more encouraging of their daughters’ education than their sons’, that fathers from the GCC are perceived as less involved in their children’s education, and that younger fathers are perceived to be more involved in their children’s education than older ones. We also find that children who perceived their fathers as encouraging and good providers are associated with higher educational attainment. However, this article underscores the need for further research on the nature and impact of father involvement on education in the Middle East.

Sorensen, Tore Bernt; Robertson, Susan L. (2020):

### Ordinalization and the OECD’s Governance of Teachers.

In: *Comparative Education Review* 64 (1), S. 21–45. DOI: 10.1086/706758.

#### Abstract:

Drawing on Marion Fourcade’s notion of ordinalization, we develop a conceptual grammar of comparison to explain a shift in the nature and outcomes of the governing capacity of the OECD over time. We argue that comparison as a mode of governance has been bound into the DNA of the OECD as a lever for advancing political liberalism since the inception of the organization. Moreover, we show that around 1990 the organization injected competitiveness into comparison by embracing ordinal modes of comparison revolving around the vertical ordering of things and people according to their relative positions on ranking scales. Yet, by analyzing the case of OECD statistics on teachers and in particular the Teaching and Learning International Survey (TALIS) program, we argue that the outcomes of the mechanism of ordinalization in the context of TALIS have thus far remained muted due to methodological constraints as well as the pluri-scalar politics involved.

Streitwieser, Bernhard; Duffy-Jaeger, Kathryn; Roche, Jane (2020):

### Comparing the Responses of US Higher Education Institutions to International and Undocumented Students in the Trump Era.

In: *Comparative Education Review* 64 (3), S. 404–427. DOI: 10.1086/709427.

*Abstract:*

Tensions over borders lie at the center of a growing global debate. But while politicians argue, some US higher education institutions (HEIs) have made education and protections possible for displaced students. Using securitization theory and social movement theory to examine the role of HEIs as they responded to immigration policies attempted by the Trump Administration, this article compares interventions in the United States for undocumented “DREAMers” and at-risk international students primarily from Muslim-majority countries. Both populations have been singled out as security threats by anti-immigration rhetoric and new restrictive policies. While priorities and practices of US HEIs and related agencies toward these at-risk populations indicate competing values, interests, and roles, they also evidence a humanitarian impulse to help. This article investigates the range of responses documented and concludes with recommendations for further research.

Unangst, Lisa; Crea, Thomas M. (2020):

### Higher Education for Refugees: A Need for Intersectional Research.

In: *Comparative Education Review* 64 (2), S. 228–248. DOI: 10.1086/708190.

*Abstract:*

Refugees pursuing higher education in the context of host countries face numerous challenges, but the literature is sparse on relevant university supports. This article evaluates the existing transnational literature using quantitative textual analysis to point toward the need for scholarship on intersectional programs serving refugee students. We then move to outline examples of such university structures, probing how intersectional programs undergird these marginalized students in Australia, Germany, the United States, and via online education providers. We address centralized admissions and enrollment procedures, mentorship, and student support networks. Finally, we urge the use of an intersectional lens in approaching program development and iteration in light of the multiple and unfolding displacement crises worldwide.

Wallner, Jennifer; Savage, Glenn C.; Hartong, Sigrid; Engel, Laura C. (2020):

### Laboratories, Coproducers, and Venues: Roles Played by Subnational Governments in Standards-Based Reforms in Four Federations.

In: *Comparative Education Review* 64 (2), S. 249–268. DOI: 10.1086/708111.

*Abstract:*

Considerable efforts have been made to better understand how global trends toward standards-based reforms have emerged in national education systems. Less well known, however, is the unfolding of standards-based reforms within and across federal education systems. In federal systems, national governments do not make policy unilaterally, but rather share authority with multiple orders of government. Using the concept of “global forms” to explore the pervasiveness of standards-based assessments across four diverse federations (Australia, Canada, Germany, and the United States), this article aims to illuminate the roles that subnational governments play in the assemblage of standards-based education reforms. We argue that three key roles played by subnational governments are apparent in each: (1) semiautonomous laboratories of innovation, (2) coproducers of policy, and (3) venues for nongovernment actors. Our work suggests that greater attention must be paid to subnational spaces to better understand the manifestation, development, and expansion of global policy trends affecting education.

Yiu, Lisa (2020):

### Educational Injustice in a High-Stakes Testing Context. A Mixed Methods Study on Rural Migrant Children’s Academic Experiences in Shanghai Public Schools.

In: *Comparative Education Review* 64 (3), S. 498–524. DOI: 10.1086/709429.

*Abstract:*

This mixed method study analyzes rural migrant children’s academic experiences in two Shanghai public schools when 2012 PISA scores were administered. It contributes empirical evidence on how *hukou* status shapes educational inequality in

contemporary China. Since rural migrants are ineligible for the high-stakes test for Shanghai's senior secondary admission, teachers diverted resources towards urban children at the expense of rural migrants, regardless of academic potential. Such "successful" teaching practices to maximize ranking motivated excessive resource provision to the detriment of urban youth's development. This article argues that it is only possible to understand these patterns through an inequality theory that explicitly considers the diminished integrity of teaching in high-stakes testing contexts. The framework explains educational injustices when the moral assumption of "good" teaching to benefit a child is no longer valid, with implications on the growing global emphasis on high-stakes testing.

Zahra, Fatima (2020):

**High Hopes, Low Dropout. Gender Differences in Aspirations for Education and Marriage, and Educational Outcomes in Rural Malawi.**

In: *Comparative Education Review* 64 (4), S. 670–702. DOI: 10.1086/710778.

*Abstract:*

The relationship between aspirations and educational outcomes has been underexplored in sub-Saharan Africa. Drawing on six waves of panel data from the Malawi Schooling and Adolescent Study, I use discrete time models to examine the relationship between aspirations for both education and marriage, and school dropout in Southern Malawi. Results show that, net of sociostructural constraints and students' own educational experiences, girls who want to marry later are less likely to drop out of school during the study period. In addition, competing risk models show that girls who want to marry later are less likely to experience marriage-related dropout. Although there is some evidence that educational aspirations are associated with school dropout, this relationship weakens when marriage aspirations are held constant, particularly for girls. These findings demonstrate the importance of considering both educational and marital aspirations as pathways relevant to girls' (but not boys') educational outcomes.

Zhu, Gang; Xu, Guoxing; Li, Yujuan; Chen, Boyin (2020):

**Typology of OECD's Global Educational Governance and Its Policy Effect.**

In: *Comparative Education Review* 64 (3), S. 525–542. DOI: 10.1086/709665.

*Abstract:*

In this essay review, we first historicize how the OECD (Organization for Economic Co-operation and Development) rose to be a global education policy actor and authority from a historical, comparative, and international perspective. Subsequently, we sketch out the global educational governing mechanisms developed by the OECD, which include but are not limited to governing by numbers, comparison, example, commensuration, affection, and "what works." Further, we summarize the main policy effects arising from the OECD's global education governance: economization of education, datafication, learnification, totally pedagogized society, and educational homogenization among different schooling systems. Finally, we discuss some alternative approaches to tackling the deleterious effects of the global educational governance.

## Reviews

Ambasta, Sumita (2020):

**The Third Pillar: How Markets and the State Leave the Community Behind** by Raghuram Rajan. London: Penguin Press, 2019. 434 pp. \$30.00 (cloth).

[Review]. In: *Comparative Education Review* 64 (2), S. 316–318.

Antony, Pavan John; Akinrinola, Ademola Alabi (2020):

**Bridging Divides. Fostering Safe Spaces for Dialogue at vCIES and Beyond.**

[Essay Review]. In: *Comparative Education Review* 64 (4), S. 777–779. DOI: 10.1086/710797.

**Abstract:**

This essay review offers reflections on “vCIES 2020: Education beyond the Human.” The 64th annual conference of the Comparative and International Education Society, which was supposed to take place in Miami, was instead held virtually due to the COVID-19 pandemic.

Asher, Kiran (2020):

**Education for Sustainable Development Cannot Afford the Cliches and Pieties of Ivy League Policy Makers.**

[Essay Review]. In: *Comparative Education Review* 64 (2), S. 342–344. DOI: 10.1086/708331.

Assie-Lumumba, N’dri T. (2020):

**An Audacious and Imperative Global Social Contract for the Collective Good.**

[Essay Review]. In: *Comparative Education Review* 64 (1), S. 153–155.

Auld, Euan (2020):

**Waste Tide: The Haunted Shadowlands of Industry 4.0 by Chen Qiufan. Translated by Ken Liu. London: Head of Zeus, 2019.**

[Media Essay Review]. In: *Comparative Education Review* 64 (1), S. 143–146.

Bautista, Alicia Sianes (2020):

**Our Atoll Speaks (Ko Talatala Mai Tō Mātou Wenua). Directed and produced by Gemma Cubero del Barrio, coproduced by Amelia Rachel Hokule’a Borofsky, and edited by Kyung Lee Los Angeles: Talcual Films, 2019. 14:02 minutes.**

[Media Review]. In: *Comparative Education Review* 64 (4), S. 789–790. DOI: 10.1086/711021.

Baxter, Jorge; Cepeda, Adriana; McLean, Hugh (2020):

**Experiencing Education through Film: Behind the Scenes of the CIES Film Festivallette.**

[Essay Review]. In: *Comparative Education Review* 64 (4), S. 780–788. DOI: 10.1086/710775.

**Abstract:**

This essay review offers reflections on “vCIES 2020: Education beyond the Human.” The 64th annual conference of the Comparative and International Education Society, which was supposed to take place in Miami, was instead held virtually due to the COVID-19 pandemic.

Chinkondenji, Pempho (2020):

Sex for Grades: Undercover in West African Universities produced by Africa Eye. 13 minutes. London: BBC News, 2019.

[Media Review]. In: *Comparative Education Review* 64 (2), S. 331–333.

Cossa, Jose; Le Grange, Lesley; Waghid, Yusef (2020):

Cosmo-Ubuntu: Toward a New (Exterior to Modernity) Theorizing about the Human, the Cosmos, and Education.

[Essay Review]. In: *Comparative Education Review* 64 (4), S. 753–756. DOI: 10.1086/710771.

Folgar Ruetalo, Leandro (2020):

The Charisma Machine: The Life, Death, and Legacy of One Laptop per Child by Morgan G. Ames. Cambridge, MA: MIT Press, 2019. 322 pp. \$35.00 (paper). ISBN 9780262537445.

[Review]. In: *Comparative Education Review* 64 (3), S. 547–548.

Gordon, June A. (2020):

South Asian American Experiences in Schools: Brown Voices from the Classroom by Punita Chhabra Rice. Lanham, MD: Lexington, 2019. 201 pp. \$95.00 (cloth). ISBN 978-1-7936-0808-6.

[Review]. In: *Comparative Education Review* 64 (2), S. 320–322.

Hu, Jingjing; Liang, Yingyi (2020):

Language, Ideology and Education: The Politics of Textbooks in Language Education edited by Xiao Lan Curdt-Christiansen and Csilla Weninger. London: Routledge, 2015. 226 pp. GBP 37.99 (paper). ISBN 9781138580268.

[Review]. In: *Comparative Education Review* 64 (2), S. 322–324.

Hu, Yitong; Fu, Yifan (2020):

Industrial Policy in the 21st Century: The Challenge for Africa by SDG Academy, presented in edX. <https://www.edx.org/course/industrial-policy-in-the-21st-century-the-challeng>.

[Media Review]. In: *Comparative Education Review* 64 (2), S. 329–331.

Iyengar, Radhika; Kwauk, Christina (2020):

Bringing in “Outside” Voices: Reflections on Sustainability Dialogues and Conference Planning.

[Essay Review]. In: *Comparative Education Review* 64 (4), S. 761–764. DOI: 10.1086/710772.

Jensen, Casper Bruun (2020):

*Cli-Fi, Education, and Speculative Futures.*

[Essay Review]. In: *Comparative Education Review* 64 (1), S. 150–152.

Jowi, James Otieno (2020):

*Internationalization of Higher Education for Development: Blackness and Postcolonial Solidarity in Africa-Brazil Relations in Higher Education* by Susan Ress. New York: Bloomsbury, 2019. 208 pp. \$122.00 (cloth). ISBN 9781350045460.

[Review]. In: *Comparative Education Review* 64 (3), S. 543–546.

Kelly, Kristy; Yiu, Lisa; Vanner, Catherine (2020):

*Toward a Feminist Framework for Virtual Conferencing.*

[Essay Review]. In: *Comparative Education Review* 64 (4), S. 769–776. DOI: 10.1086/710770.

*Abstract:*

This essay review offers reflections on “vCIES 2020: Education beyond the Human.” This 64th annual conference of the Comparative and International Education Society, which was to have taken place in Miami, was instead held virtually due to the COVID-19 pandemic. The authors are coauthors of the CIES Gender and Education Standing Committee.

Lewis, Steven (2020):

*Understanding PISA’s Attractiveness: Critical Analyses in Comparative Policy Studies* edited by Florian Waldow and Gita Steiner-Khamsi. London: Bloomsbury Academic, 2019. 272 pp. \$85.40 (cloth); \$60.39 (eBook); \$60.39 (ePDF). ISBN 978-1-3500-5728-9 ; 978-1-3500-5729-6 ; 978-1-3500-5730-2.

[Review]. In: *Comparative Education Review* 64 (3), S. 551–553.

Marquina, Andrea Alejandra Gordillo (2020):

*The Art of Protest in Latin America: A Media Review of Ana Tijoux’s Cacerolazo and Other Protest Art in Latin America’s 2019 Uprisings Cacerolazo.* By Ana Tijoux. Produced by Jon Grandcamp, 2019.

[Media Essay Review]. In: *Comparative Education Review* 64 (2), S. 325–328. DOI: 10.1086/708335.

Mundy, Karen (2020):

*The Binti Series and The Marrow Thieves: Binti* by Nnedi Okorafor. New York: Tom Doherty Associates, 2016. // *Binti: Home* by Nnedi Okorafor. New York: Tom Doherty Associates, 2017. // *Binti: The Night Masquerade* by Nnedi Okorafor. New York: Macmillan, 2018. // *The Marrow Thieves* by Cherie Dimaline. Toronto: Cormorant Books, 2017.

[Essay Review]. In: *Comparative Education Review* 64 (1), S. 139–142.

Seithers, Laura C.; Sivasubramaniam, Malini; Sperduti, Vanessa R. (2020):

Negotiating the Virtual Conference Space. Reflections from New and Emerging Scholars on vCIES 2020.

[Essay Review]. In: *Comparative Education Review* 64 (4), S. 765–768. DOI: 10.1086/710769.

*Abstract:*

This essay review offers reflections on “vCIES 2020: Education beyond the Human.” The 64th annual conference of the Comparative and International Education Society, which was supposed to take place in Miami, was instead held virtually due to the COVID-19 pandemic. Authors contributed equally to this work.

Sheikh, Mariam Parvez (2020):

Youth and the National Narrative: Education, Terrorism and the Security State in Pakistan by Marie Lall and Tania Saeed. London: Bloomsbury, 2019. 224 pp. \$110.00 (cloth). ISBN 978-1-3501-1219-3.

[Review]. In: *Comparative Education Review* 64 (3), S. 548–550.

Silova, Iveta (2020):

The *Power* of Radical Thought Experiments. Reading Feminist Science Fiction in Comparative Education.

[Essay Review]. In: *Comparative Education Review* 64 (1), S. 147–149. DOI: 10.1086/706850.

Silova, Iveta; Millei, Zsuzsa; Goebel, Janna; Manion, Caroline; Read, Robyn (2020):

Beyond the Human. Rethinking Education and Academic Conferencing during the Times of Climate Crisis.

[Essay Review]. In: *Comparative Education Review* 64 (4), S. 749–752. DOI: 10.1086/710774.

Stein, Sharon; Cajkova, Tereza (2020):

Transforming Our World: Achieving the Sustainable Development Goals by SDG Academy, presented in edX. [www.edx.org/course/transforming-our-world-achieving-the-sustainable-d](http://www.edx.org/course/transforming-our-world-achieving-the-sustainable-d).

[Media Review]. In: *Comparative Education Review* 64 (2), S. 334–337.

Taj, Norin (2020):

Becoming-With Golden Daffodils.

[Essay Review]. In: *Comparative Education Review* 64 (4), S. 757–760. DOI: 10.1086/710773.

*Abstract:*

This essay review offers reflections on “vCIES 2020: Education beyond the Human.” This 64th annual conference of the Comparative and International Education Society, which was to have taken place in Miami, was instead held virtually due to the COVID-19 pandemic.



Wilson, Japhy (2020):

Three Questions to Consider before Signing Up for Jeffrey Sachs's Global Education Plan.

[Essay Review]. In: *Comparative Education Review* 64 (2), S. 338–341. DOI: 10.1086/708332.

Zhang, Ningshan (2020):

Socioeconomic Inequality and Educational Outcomes: Evidence from Twenty Years of TIMSS by Markus Broer, Yifan Bai, and Frank Fonseca. Basel: Springer Nature Switzerland AG, 1991. 91 pp. \$59.99 (cloth). ISBN 978-3-030-11991-1. Free download available at <https://link.springer.com/content/pdf/10.1007%2F978-3-030-11991-1.pdf>.

[Review]. In: *Comparative Education Review* 64 (2), S. 318–320.

## Specials

Acknowledgments [Reviewer Thank You].

[Acknowledgements] (2020). In: *Comparative Education Review* 64 (2), S. 350–354.

Black Lives Matter: Statement and Action Plan from the *Comparative Education Review*.

[Statement] (2020). In: *Comparative Education Review* 64 (3), S. 355.

Abadzi, Helen; Centanni, Tracy (2020):

Why Fast and Effortless Reading Is Indispensable for Comprehension.

[Commentary]. In: *Comparative Education Review* 64 (2), S. 299–308. DOI: 10.1086/708300.

*Abstract:*

Dowd and Bartlett (2019) tested the reading competencies of second graders attending Save the Children programs in 11 countries. They used sixty-word passages and comprehension questions without time limits and analyzed data of students reading more than 10 words per minute. They found wide disparities in speed among those who showed high comprehension rates between-countries and within-country. They interpreted the findings as diminishing the role of speed in early-grade assessment and instruction. However, the study has major issues on three fronts: (a) use of English-language studies for transparent orthographies, (b) disregard of current neurocognitive research on memory functions, and (c) sample selectivity. These raise grave concerns regarding the internal and external validity of the conclusions. The authors' dedication is admirable, but their findings do not justify any policy recommendations. To the contrary, given the importance of speed for comprehension, their recommendations may have the perverse effect of disadvantaging the very students that Save the Children is supporting. Researchers and journals have the ethical obligation to publish studies that reflect contemporary reading research.

Dowd, Amy Jo; Bartlett, Lesley; Khamis-Dakwar, Reem; Froud, Karen (2020):

Measure Fluency, Vocabulary, and Comprehension in International Reading Efforts.

[Response]. In: *Comparative Education Review* 64 (2), S. 309–315. DOI: 10.1086/708301.

*Abstract:*

In their commentary, Abadzi and Centanni continue a much-needed dialogue about the use of correct words per minute (CWPM) to measure reading success. We agree that it is important to consider psycholinguistic and cultural factors in developing evidence-based evaluation tools for global literacy initiatives. We support Abadzi and Centanni's contention that such notions must be debated within our scholarly and policy-making communities and across disciplines. In that spirit, Dowd and Bartlett invited two neurocognitive scientists, Reem Khamis-Dakwar and Karen Froud, to join in this response. Before addressing specific critiques, we remind readers that fluency entails accuracy, automaticity, and prosody; it is inaccurate to claim that CWPM captures fluency comprehensively (Rasinski and Hoffman 2003; Kuhn et al. 2010).

Menashy, Francine (2020):

Reimagining Comparative Education through the Lens of Science Fiction. An Introduction to the Special Section of Book and Media Essay Reviews.

[Introduction]. In: *Comparative Education Review* 64 (1), S. 137–138.

Post, David (2020):

After Progress.

[Presidential Address]. In: *Comparative Education Review* 64 (4), S. 563–576. DOI: 10.1086/710996.

*Abstract:*

During the 1950s the field of comparative education was steered by the American idea of progress. The Comparative Education Society was founded under an assumption that research and understanding of education worldwide is progressive, and thus social engineering through education could ameliorate poverty, inequality, disease, and other mid-twentieth-century challenges. This essay speculates on the future of a field that no longer assumes that more or better understanding about education will lead to better consequences. However, rather than conceding defeat, the essay offers examples from an agenda that is necessary to promote education for sustainability. Progress is still one guiding star for researchers, among others stars in the constellation. The Comparative and International Education Society can still contribute to a global conversation on sustainable development. However, the essay concludes by noting several key challenges for the organization.

## Editorials

Desjardins, Richard; Looney, Janet; Wiksten, Susan (2020):

Letter from the joint editors.

[Editorial]. In: *European Journal of Education* 55 (1), S. 1–2. DOI: 10.1111/ejed.12376.

Gordon Györi, János (2020):

Shadow education - Opportunity for development.

[Editorial]. In: *European Journal of Education* 55 (3), S. 305–310. DOI: 10.1111/ejed.12415.

Hooge, Edith; Pont, Beatriz (2020):

School leadership in unpredictable times.

[Editorial]. In: *European Journal of Education* 55 (2), S. 135–138. DOI: 10.1111/ejed.12397.

Pavlin, Samo; Sušan, Zoran (2020):

The academic profession in the Western Balkans. Time for a turning point?

[Editorial]. In: *European Journal of Education* 55 (4), S. 471–475. DOI: 10.1111/ejed.12426.

## Original Articles

Bellibaş, Mehmet Şükrü; Gümüş, Sedat; Kılıç, Ali Çağatay (2020):

Principals supporting teacher leadership. The effects of learning-centred leadership on teacher leadership practices with the mediating role of teacher agency.

In: *European Journal of Education* 55 (2), S. 200–216. DOI: 10.1111/ejed.12387.

*Abstract:*

Teacher leadership has attracted scholarly interest over the past decade because of its potential to build internal capacity for sustainable school improvement. However, the existing studies have mostly been descriptive and limited to qualitative studies, lacking in terms of showing whether and to what extent principal leadership might influence teacher leadership. The purpose of this study was to examine the effects of principals' learning-centred leadership in fostering teacher

leadership and the mediating role of teacher agency in Turkey. The study conducted a cross-sectional survey design. Structural equation modeling was used for estimating relationships among variables in the conceptual model. Findings demonstrated that principals' learning-centred leadership had a moderate but statistically significant direct effect on teacher leadership and a significant and moderate effect on teacher agency. Findings also highlighted teacher agency as a significant mediator in the relationship between principals' learning-centred leadership and teacher leadership. The research confirmed that principals' leadership practices with specific emphasis on teaching and learning were important for enhancing a school culture in which teachers' participation in decisions and their enthusiasm for undertaking leadership practices are supported.

Brajdíć Vuković, Marija; Vignjević Korotaj, Bojana; Čulum Ilić, Bojana (2020):

### STEM colonization. Applying hard sciences' socio-organisational patterns and evaluation procedures to the soft sciences in Croatia.

In: *European Journal of Education* 55 (4), S. 542–559. DOI: 10.1111/ejed.12421.

#### Abstract:

Academic systems are undergoing changes in which the social organisation of research as well as patterns of scientific productivity in the humanities and social sciences progressively resemble those in hard sciences. The hard and soft sciences are increasingly converging. This development can be observed in (a) publishing patterns, (b) the division of research, and (c) the internationalisation of research. This study explored the extent to which these changes occurring in academic systems in terms of a transformation of disciplinary practices are also becoming a trend in transitional post-socialist countries. We used Croatia as a case of a post socialist transitional context and compared it to Slovenia, a country with a similar past but somewhat different science policies and strategies. The results point to increasing convergence in some soft disciplines, visible in projectification and internationalisation of academic work as well as a significant change in the publishing patterns.

Breznik, Kristijan; Skrbinjek, Vesna (2020):

### Erasmus student mobility flows.

In: *European Journal of Education* 55 (1), S. 105–117. DOI: 10.1111/ejed.12379.

#### Abstract:

This article identifies student mobility flows using Erasmus data from 2007–2008 to 2013–2014. We used the software programmes “R” for statistical analysis and “Pajek” for analysis of networks. Findings provide an overview of student mobility from three perspectives. We find the most balanced relative outbound and inbound mobility in Spain, Switzerland, Austria and Poland. Moreover, Spain and Italy exchange the most students between each other. Overall, the core centres for student mobility are Spain, France, Germany and Italy. Smaller countries, such as Luxemburg, Malta and Liechtenstein, have large numbers of mobile students considering the size of the country's student population. The network analysis revealed three groups of countries: (1) good receivers and senders (Spain, Italy, and Germany), (2) good receivers only (Finland, Sweden, the United Kingdom and Portugal) and (3) good senders only (Belgium and the Czech Republic).

Calafato, Raees (2020):

### Language teacher multilingualism in Norway and Russia. Identity and beliefs.

In: *European Journal of Education* 55 (4), S. 602–617. DOI: 10.1111/ejed.12418.

#### Abstract:

Multilingualism has witnessed growing interest as a subject of academic study and as a state to aspire to for many of the world's citizenry. In tandem with this growing interest, countries around the world have started to implement foreign language curricula at schools that seek to prepare the coming generations to thrive in an increasingly multilingual global environment. In this respect, language teachers are likely to play a pivotal role in promoting the learning of multiple languages among students, with their beliefs about multilingualism informing their practices. This study reports on the beliefs of 460 secondary school teachers of English, French, German, Spanish, Italian, and Chinese in Norway and Russia

regarding the benefits of being or becoming multilingual, the affordances of multilingual teachers, and the promotion of multilingualism in their respective countries. The findings indicated statistically significant differences between the participants based on the number of languages they taught and, to some extent, their country of residence. The observed differences hold important implications for teacher education programs and initiatives promoting the use of multilingualism as a resource in language education.

Egelandsdal, Kjetil; Riese, Hanne (2020):

**Never mind the gap. Formative assessment confronted with Dewey's and Gadamer's concept of experience.**

In: *European Journal of Education* 55 (1), S. 91–104. DOI: 10.1111/ejed.12378.

*Abstract:*

The notion of “closing the learning gap” is widely used in the conceptualisation of formative assessment. It builds on an unarticulated assumption that students' learning can and should be controlled towards predefined outcomes. This article discusses this control assumption in the light of the concept of the American philosopher John Dewey and the German philosopher Hans-Georg Gadamer. Their conceptualisation challenges the idea of learning as a linear and controllable process that results in stable and predictable outcomes. Using the concept of experience, we argue that learning follows a continuous circular movement where previous experiences condition future interpretations and that every experience changes the subject. This process of change is both unpredictable and diverse and requires that attention is paid to the uniqueness of each situation and to students as subjects. Following the discussion, we propose a model for considering the extensiveness and rigidity of formative assessment practices and that authors pay attention to whether they conceptualise formative assessment in a way that promotes student and teacher “gap closing” and control.

Fiore, Brunella; Poliandri, Donatella (2020):

**The Programme for International Student Assessment and Google. An analysis of online news in Italy.**

In: *European Journal of Education* 55 (3), S. 428–440. DOI: 10.1111/ejed.12406.

*Abstract:*

Media reporting of results from the survey conducted by the OECD Programme for International Student Assessment (PISA) have led to far-reaching reforms in many countries. The study on which this article reports analysed how media has responded to the survey results in the national context of Italy. Governments have been suggested to either accept, refuse or renegotiate survey results. Our research elaborated on how information on PISA results were conveyed by searches on the internet search engine Google. A review of 353 contributions published on 127 different online news portals in the period between 2006 and 2018 was analysed, with focus specifically on political communication. An exploratory documentary analysis, using quantitative and qualitative analyses, was conducted for identifying the most recurrent themes. News from four online news portals that recorded the highest number of contributions is analysed in depth, namely: *Corriere della Sera*, *Il Sole 24 Ore*, *La Repubblica*, and *Orizzonte Scuola*. Our analysis suggests that the message about PISA results transmitted by the media was neither rejected nor renegotiated in news, nor by those who contribute to political debates. Nor can the message be understood as accepted since a well-informed active process of public debate in the media and among the political decision makers has not taken place.

Franceško, Mirjana; Nedeljković, Jasmina; Živković, Milan; Đurđić, Sanja (2020):

**Public and private higher education institutions in Serbia. Legal regulations, current status and opinion survey.**

In: *European Journal of Education* 55 (4), S. 514–527. DOI: 10.1111/ejed.12424.

*Abstract:*

This article provides insight into the state of higher education in Serbia, particularly in the context of reform processes based on European Higher Education Area principles. A multidimensional approach was taken, encompassing (a) a review

and analysis of legal regulations relevant to the historical context of Serbia, (b) an examination of current working conditions at accredited state and private higher education institutions, (c) and a pilot survey of attitudes among the main participants in higher education teaching. The research gauged attitudes of university professors and students with work or study experiences, respectively, at both state and private higher education institutions. Specific instruments for measuring attitudes were constructed for this study. Professors' attitudes toward state and private higher education were compared through the assessment of aspects of organisational culture including work organisation, stimulating atmosphere, innovation, and creativity. Students expressed their attitudes toward state and private higher education in terms of general atmosphere, curricula, grading criteria, and student status. The results indicate that private higher education was appreciated slightly more than state higher education; both professors and students held more positive attitudes of private higher education for all dimensions investigated.

Frias-Navarro, Dolores; Pascual-Llobell, Juan; Pascual-Soler, Marcos; Perezgonzalez, Jose; Berrios-Riquelme, Jose (2020):

### Replication crisis or an opportunity to improve scientific production?

In: *European Journal of Education* 55 (4), S. 618–631. DOI: 10.1111/ejed.12417.

#### Abstract:

Science is undergoing a crisis that has been referred to, since the early 21st century, as a crisis of confidence and a crisis of replication. This article reviews questions pertaining to the replication crisis; questions addressing the quality and credibility of the sciences; specifically, questions linked to what are known as false positives, null results, and questionable research practices (p-hacking, harking, cherry-picking). As an outcome of our review and analysis, a set of recommendations to strengthen the elaboration of reliable and valid research studies is provided. Changes are needed in order to foment meta-research, open science practices and replication studies; notably, changes are needed in the instruction of research methods; in the use and interpretation of statistical data, as well as in research culture in general. We conclude that the replication crisis presents an opportunity to improve research practices and the quality of scientific production in all fields of research, including research in education.

Garcia-Andreu, Hugo; Acebal Fernandez, Alejandro; Aledo, Antonio (2020):

### Higher education segregation in Spain. Gender constructs and social background.

In: *European Journal of Education* 55 (1), S. 76–90. DOI: 10.1111/ejed.12377.

#### Abstract:

The waning influence of ascriptive factors on occupational status has been related to the expansion of higher education systems and economic modernisation. The theory of Effectively Maintained Inequality observes that the horizontal stratification of university degrees is a strategy of social differentiation used mainly by the most advantaged social class to access the occupations that are better valued in the labour market. This article verifies the effectively maintained inequality theory by means of a statistical analysis of selected degrees, differentiated by gender and social class, carried out in a Spanish university during the period of expansion and consolidation of the higher education system. The results confirm the theory, but they are partially conditioned by the vertical stratification that alters the composition by gender of the contingent of students of less advantaged social class, in which women present a greater tendency to choose degrees that are less valued by the market.

Geijssels, Femke; Schenke, Wouter; van Driel, Jan; Volman, Monique (2020):

### Embedding inquiry-based practices in schools. The strategic role of school leaders.

In: *European Journal of Education* 55 (2), S. 233–247. DOI: 10.1111/ejed.12395.

#### Abstract:

The context of this study were research and development projects in Dutch secondary education, particularly funded by government to combine practice-based research with school development goals for inquiry-based culture. Aiming at better understanding of the strategic role that school leaders play in embedding inquiry-based practices in schools, the research question of this study was to explore to what extent and how do school leaders use the opportunity of participating in

funded research and development projects for encouraging and integrating inquiry-based practices in their schools? Differences concerning the integration of inquiry-based working in the school as professional learning community were examined, distinguishing between school leaders' strategies of capacity building. Twenty-eight school leaders of Dutch secondary schools, involved in nineteen projects, were interviewed retrospectively. Analyses showed the majority of the school leaders to be convinced that inquiry-based working is important for their schools' development as a professional community. Their strategies for achieving school level project significance differed in school leaders' successive attention on personal or interpersonal capacity building with regard to inquiry-based practices. Moreover, while some school leaders were actively involved with capacity building right from the start of the research and development projects, almost two-third of the school leaders developed interest in inquiry-based practices during the projects and started to enact in the final year of the project. In discussing the results, it is proposed that the interaction of strategy and context needs further study, for instance to inform peer learning among school leaders that are novice and experienced in inquiry-based practices as a means to develop the school as a professional learning community.

Ghosh, Pubali; Bray, Mark (2020):

School systems as breeding grounds for shadow education. Factors contributing to private supplementary tutoring in West Bengal, India.

In: *European Journal of Education* 55 (3), S. 342–360. DOI: 10.1111/ejed.12412.

*Abstract:*

In the academic literature, private supplementary tutoring is widely known as shadow education, in part because it is commonly indistinct and because much of its content mimics that in mainstream schooling. Around the world, shadow education has become an important part of students' lives and in some places it diminishes the body that it mimics. This paper builds on studies that have focused on relationships between schooling and shadow education. The paper uses the conceptual lens of privatisation-by-default, and employs qualitative methods to understand the roles of both government and private schools in promoting tutoring in West Bengal, India. It finds that substantial proportions of shadow education emanate from and are fostered by school systems. On the one hand private tutoring as a form of privatisation-by-default gives freedom of choice, but on the other hand it limits choice. Further, school-bred tutoring can have a negative backwash on school systems. As such, private supplementary tutoring is not just a neutral shadow but affects the body that it imitates. The study recommends researchers to look back at schools to gain a deeper understanding of private supplementary tutoring.

Haase, Heiko; Franco, Mario; Pedro, Eugénia (2020):

International student mobility in a German and Portuguese university. Which factors in the host institution matter?

In: *European Journal of Education* 55 (2), S. 292–304. DOI: 10.1111/ejed.12386.

*Abstract:*

In a globalising world, international mobility in higher education is an important phenomenon for students and higher education institutions. It is therefore essential to understand the factors that determine international students' satisfaction with higher education institutions that serve as hosts. Through research of an exploratory, quantitative nature, this study presents results from a survey among 289 incoming international students in two universities in Germany and Portugal. Our findings show that the factor we define as educational experience was an important determinant of student satisfaction. Furthermore, the appraisal of academic reputation is dependent on the university. We conclude that satisfaction with academic factors is more important for international students than satisfaction with non-academic aspects.

Han, Seong Won; Borgonovi, Francesca (2020):

Students' teaching career expectations by gender and ability levels in science and math. The role of salary and numeracy skills.

In: *European Journal of Education* 55 (3), S. 405–427. DOI: 10.1111/ejed.12407.

*Abstract:*

Understanding what factors foster young people's aspirations to work as teachers is critical for designing effective recruitment policies, and for ensuring that enough youngsters enter the teaching profession. We examine what factors explain between-country differences in the percentage of 15-year-old students who expect to work as teachers as adults. We focus on two factors: (1) the salaries teachers can expect to earn compared to professionals in science, technology, engineering and mathematics (STEM); and (2) the skill levels teachers have compared to STEM professionals. Relative salaries indicate if (and to what extent) the financial returns associated with teaching careers are higher or lower than professional STEM careers dominated by men. Relative skills highlight the investment in human capital that teachers are expected to make to be able to enter the profession, as well as the social and cultural status that is associated with teaching. We used data from 29 countries that participated in the Programme for International Student Assessment and the Programme for International Assessment of Adult Competencies. In countries where teacher salaries and numeracy skills were high compared to those commanded by STEM professionals, gender gaps in teaching career expectations were smaller. High-ability students in science and mathematics were more likely to expect to work as teachers in countries where teachers have comparatively higher numeracy skills. Our findings show that when teacher salaries are competitive in relationship to the salaries of STEM professionals, more students overall expect to work as teachers. However, whilst low- and middle-performing students in science and mathematics were attracted by economic incentives, high-performing students in science and mathematics were not.

Hanušová, Světlana; Pišová, Michaela; Kohoutek, Tomáš; Minaříková, Eva; Ježek, Stanislav; Janík, Tomáš et al. (2020):

### Novice teachers in the Czech Republic and their drop-out intentions.

In: *European Journal of Education* 55 (2), S. 275–291. DOI: 10.1111/ejed.12373.

*Abstract:*

The current paper presents the results of the first research study of drop-out intentions of novice teachers in the Czech Republic. The study focuses on the reported satisfaction of novice teachers in primary and lower secondary schools with external factors that influence their socialisation and that can be seen as predictors of novice teachers' decision to stay in their current school. In the paper we present the results of quantitative research conducted in 2015–2017. Our main findings include the key significance of factors at the school level, especially the influence of school culture and climate, cooperation with colleagues and leadership. We conclude that in the Czech context teachers tend to stay in schools provided that they work in a well-functioning school, with cooperative colleagues and good head teachers.

Jerrim, John; Lopez-Agudo, Luis Alejandro; Marcenaro-Gutierrez, Oscar D. (2020):

### The association between homework and primary school children's academic achievement. International evidence from PIRLS and TIMSS.

In: *European Journal of Education* 55 (2), S. 248–260. DOI: 10.1111/ejed.12374.

*Abstract:*

The association between time devoted to homework and children's academic achievement has long been an issue of great debate. A small number of mainly correlational studies have been conducted into this issue in a primary school setting, but have produced somewhat mixed results. In this paper we contribute to this literature by investigating the relationship between time spent upon homework and children's outcomes across 24 countries. By using a student fixed-effects approach, capturing differences in homework time amongst the same student across different school subjects, we argue that our results are likely to be subject to less confounding than much of the existing literature. We find little evidence that the amount of homework time primary school children are assigned is related to their academic achievement. This holds true across a large number of countries, survives various robustness tests and does not vary by gender or socio-economic status. We interpret this finding as suggesting that the homework assigned to primary school pupils may not be adequate to produce a positive association, and needs be improved if this time-consuming activity is ever going to bring benefits for children's academic achievement.



Kim, Young Chun; Jo, Jaeseong; Jung, Jung-Hoon (2020):

The education of academically gifted students in South Korea. Innovative approaches in shadow education.

In: *European Journal of Education* 55 (3), S. 376–387. DOI: 10.1111/ejed.12399.

*Abstract:*

Shadow education contributes to the learning and academic careers of Korean students. It benefits, in particular, gifted students who are strongly motivated and who outperform their peers academically. In this study, we explored the innovative characteristics of shadow education curricula for gifted students in terms of curricular programmes, methods, and teaching-learning materials. Also, we explored how shadow education practices meet the academic abilities and needs of students. Informed by a literature review and qualitative research methods, the results reveal how common shadow education is; effects of shadow education; and innovative elements used in shadow education for gifted students in Korea. Overall, we found that shadow education plays a crucial role in gifted education; it is a necessary component for understanding academic excellence among students in Korea. The findings are helpful for teachers, curriculum developers, and policymakers as they explore how public schooling can help to support strongly motivated and academically advanced students.

King Smith, Angela; Watkins, Karen E.; Han, Seung-Hyun (2020):

From silos to solutions. How one district is building a culture of collaboration and learning between school principals and central office leaders.

In: *European Journal of Education* 55 (1), S. 58–75. DOI: 10.1111/ejed.12382.

*Abstract:*

Large urban school districts often struggle with hierarchy, fragmented processes and cultures whereby organisational silos between school and central office staff serve as a major barrier for reaching the desired strategic goals of improving student achievement. In addition, school district staff are undergoing change requiring leaders and staff in these organisations to adapt and build their capacity to support changing demands. However, little attention is paid to how to build the necessary systems and learning environments to support capacity building and leader development. This article reports on an action research study using mixed methods that reveal how central office leaders and school principals break down organisational silos to build a culture of learning using learning organisation principles. Using the Dimensions of the Learning Organization Questionnaire (DLOQ) short form, participants completed questions related to the school district's capacity for learning. Data from the survey and interviews outline key findings that illustrate how the learning organisation framework served as a model to create the organisational conditions and culture to enable support and cooperation for learning, capacity, change and improvement to occur. This action research case study is a look at one organisation's approach to addressing a gap in learning organisation research in the area of learning organisation interventions. In addition, it extends current research on schools as learning organisations with an example of data-informed change in one large school district in the southern United States.

Knapp, Mariella (2020):

Between legal requirements and local traditions in school improvement reform in Austria. School leaders as gap managers.

In: *European Journal of Education* 55 (2), S. 169–182. DOI: 10.1111/ejed.12390.

*Abstract:*

The implementation of a new school type has changed the context of school leadership in Austrian lower secondary schools. An interview study with 25 secondary-school leaders was undertaken. The goal of the study was to inquire how school leaders conceptualise their role in the local policy adaptation of a centrally driven reform. The results indicate that school leaders saw themselves as double agents in facing increasing demands from within and without schools for legitimating their work. Neo-institutionalist theory is used for explaining the role of school leaders as gap managers. The concept of gap management is deployed for describing the role of school leaders as balancing multiple and contradictory interests at school and among local actors such as teachers, parents, students, and community partners.

Kools, Marco; Stoll, Louise; George, Bert; Steijn, Bram; Bekkers, Victor; Gouëdard, Pierre (2020):

### The school as a learning organisation. The concept and its measurement.

In: *European Journal of Education* 55 (1), S. 24–42. DOI: 10.1111/ejed.12383.

#### Abstract:

A growing body of scholars, educators and policy makers has argued for reconceptualising schools as “learning organisations” in the last 25 years as. However, a lack of clarity on the concept has hindered its advance in theory and practice. This study responds to this problem by developing a schools as learning organisations scale that expands and clarifies the concept on several points. Drawing on survey data (nschool staff = 1,703) from Wales (UK), it examines the key characteristics of a school as a learning organisation through a principal component analysis and reliability analysis. The results showed that such a school is associated with eight dimensions: (a) a shared vision centred on the learning of all students, (b) partners contributing to school vision, (c) continuous learning opportunities, (d) team learning and collaboration, (e) a culture of enquiry, innovation and exploration, (f) systems for collecting and exchanging knowledge and learning, (g) learning with and from the external environment, and (h) modelling learning leadership. The resulting 65-item scale demonstrated good psychometric qualities. A reliable and valid schools as learning organisations scale can help enhance our understanding of the concept. The scale can also be used by school leaders, teachers and all others wanting to develop a thriving learning culture in their schools.

Leví-Orta, Genoveva; Sevillano-García, Luisa; Vázquez-Cano, Esteban (2020):

### An evaluation of university students’ latent and self-perceived digital competence in the use of mobile devices.

In: *European Journal of Education* 55 (3), S. 441–455. DOI: 10.1111/ejed.12404.

#### Abstract:

This article presents an experimental study of the assessment made by university students of their level of digital competence in the use of mobile devices such as smartphones, laptops and tablets. The study was part of an investigation into ubiquitous learning with mobile devices and is based on the analysis of responses from a sample of 203 university students at eleven European and Latin American universities. Participants were asked questions about their performance on a set of digital activities that tested various components of digital competence. The analysis methodology was based on Item Response Theory (IRT). The survey data was analysed by applying a statistical model to represent the probability of obtaining an affirmative answer to each activity proposed. This enabled us to identify the difficulty and discrimination parameters of each activity. As an outcome of the study, measures on latent digital competence in individual participants were articulated. The results allowed us to describe how a number of devices and activities interacted. Understanding these types of interactions is necessary for a continued development of the evaluation of digital competence in students.

Liu, Junyan; Bray, Mark (2020):

### Accountability and (mis)trust in education systems. Private supplementary tutoring and the ineffectiveness of regulation in Myanmar.

In: *European Journal of Education* 55 (3), S. 361–375. DOI: 10.1111/ejed.12409.

#### Abstract:

Private supplementary tutoring, widely known as shadow education, has been viewed by many families around the world as a necessary complement to schooling. The analysis presented draws on questionnaire and interview data from secondary school students, teachers, principals, parents and other stakeholders in Myanmar. Parents displayed institutional mistrust in their perception of the inadequacy of public schooling to meet their children’s needs. Organisational and interpersonal mistrust were also evident. The matters of mistrust relate to the theme of accountability in education, which requires systems for regulation and monitoring. The regulations on tutoring in Myanmar were widely ignored and were arguably worse than useless. The article is grounded in the context of Myanmar but has considerable insights for the wider literature.

Miočić, Ivana; Brajdić Vuković, Marija; Ledić, Jasminka (2020):

The positive attitude approach for teaching in higher education. An untrodden path for policy and practice.

In: *European Journal of Education* 55 (4), S. 560–572. DOI: 10.1111/ejed.12420.

*Abstract:*

This article reports on a study in which a new conceptual framework for fostering a positive attitude towards teaching in higher education (PATTHE) was developed. The PATTHE framework builds on a holistic four-dimensional theoretical concept and is not limited by the specificity of teaching within a particular discipline or national higher education context. The four dimensions of PATTHE pertain to (a) emotional dimension, (b) professional development, (c) constructivist approaches to teaching, and (d) the teaching and research nexus; all of which are relevant for empowering quality teaching at personal, institutional and/or national higher education policy levels. The purpose of our study was to test and analyse this conceptual framework. Creative qualitative research methods were used including identification of keywords, evoking participant opinions through visual materials, reactions to vignettes, and by documenting discussions regarding the proposed PATTHE conceptual framework. A purposive and critically informed approach was used for the selection of twelve higher education experts as research participants. Responses from the selected education developers were collected through an online protocol system. Research results revealed that participant reflections on a positive attitude towards teaching showed a high level of agreement with the proposed conceptual framework; the proposed theoretical concept is thereby deemed well-constructed and acceptable with minimal extensions.

Ng, David Foo Seong; Wong, Choun Pei (2020):

The role of school leadership in Singapore's future-ready school reform.

In: *European Journal of Education* 55 (2), S. 183–199. DOI: 10.1111/ejed.12392.

*Abstract:*

In this paper, we propose that successful education needs to fulfil three purposes while being cognisant of time and context: (a) learning, (b) lifework and (c) well-being. An education system is successful if it can develop future-ready individuals who will continue to learn beyond graduation, take on future lifework, and thrive in a changing society and environment. The future is context-situated and context-dependent. We have chosen to examine the economic, social and environmental context of Singapore to provide insight on the values, skills and knowledge that are required of future-ready learners according to the three purposes. We have compared the trajectories of other high-income nations with those of Singapore. Traditional teaching and learning practices no longer serve us well in the new realities that emerge. Education practices need to evolve in tandem to meet the demands of the 21st century. The roles that school leaders play include creating teaching and learning environments where these practices can be implemented. In our review of leadership practices and concepts, we have found that it is important for school leaders to question existing assumptions of teaching, learning and leadership practices in order to advance the development of 21st century skills, knowledge, values, and habits in learners.

Papazoglou, Asimina; Koutouzis, Manolis (2020):

Schools as learning organisations in Greece. Measurement and first indications.

In: *European Journal of Education* 55 (1), S. 43–57. DOI: 10.1111/ejed.12380.

*Abstract:*

School context—institutional, community, national socio-cultural, economic and political—plays an important role in developing the characteristics of a learning organisation. In the last decade, the discussion on the school as a learning organisation (SLO) has emerged in Greece which is characterised by a centralised and highly bureaucratised educational system. However, there is a gap in studying SLOs nationwide in Greece and more importantly in using a valid and tested instrument related specifically to schools. The aim of this study was to examine the validity of the School as Learning Organisations Survey, based on Integrated Model of the School as Learning Organisation, used in a large scale nationwide SLO study in the Greek context and investigate whether two key antecedents, school size and school geographic location, are related to the level of schools' operating as learning organisations (LOs). A quantitative research was conducted in 418 primary schools throughout Greece. Findings showed that the Schools as Learning Organisations scale in the Greek context consisted of six dimensions and 65 items that loaded on these dimensions. Furthermore, "school size" is related to the

transformation of schools into LOs. On the contrary, there seems to be no association between school geographic location and the operation of Greek schools as LOs.

Pavlin, Samo (2020):

Who makes higher education graduates ready for work? The case of teacher education in Slovenia.

In: *European Journal of Education* 55 (4), S. 489–500. DOI: 10.1111/ejed.12423.

*Abstract:*

This paper starts by focusing on the problem of students' transition to working life in the domain of teacher education. Second, it problematises the teacher educator concept. Particular attention is paid to the question of which professionals regard themselves as teacher educators, and why. Third, it presents young teachers' acquisition of working experience and their transition from education to work in Slovenia as linked to three processes: practical and developmental work in schools during studies, traineeship period, and continuous professional learning. The general findings indicate that teacher education, training and professional development are all characterised by a sharp division between the role of academics (transmitters of theory), and senior teachers (facilitators of teachers' practical experiences). In our findings we demonstrate that young graduates lack a well-considered and integrated acquisition of practical experience as they move from education to the labour market. The paper is concluded with a call for better understanding the role of academics in preparing graduates for the world of work.

Pavlin, Samo; Sušanj, Zoran (2020):

Challenges in developing the academic profession in the Western Balkans.

In: *European Journal of Education* 55 (4), S. 573–586. DOI: 10.1111/ejed.12427.

*Abstract:*

In this paper, we explore the developmental challenges facing the academic profession in Europe and especially in some Western Balkan countries, Croatia and Slovenia. First, we look at how the higher education environment determines key changes to the academic profession: expectations to demonstrate professional expertise, internationalisation, segmentation, and precarity. While these processes are mainly considered from the above perspective, we also examine the work of academics from within. Second, we discuss aspects of academic tasks, challenges of synchronising academic work with performance measures, intensification of work and expansion of bureaucratic tasks. Building on these perspectives, we introduce a qualitative pilot study that tests how these general trends described in the literature may be applied to given situations in five countries of former Yugoslavia: Slovenia, Croatia, Serbia, North Macedonia and Kosovo. Although these countries cover a relatively small geographical area, the differences among them with respect to the economy, society and politics are important. Our findings suggest that problems accumulating in academic work in Slovenia and Croatia were in almost all of the surveyed aspects less problematic than in the three other observed countries.

Pont, Beatriz (2020):

A literature review of school leadership policy reforms.

In: *European Journal of Education* 55 (2), S. 154–168. DOI: 10.1111/ejed.12398.

*Abstract:*

This literature review aims to understand the factors that influence the adoption of school leadership policy reforms and whether there are some common trends that lead to policy changes in this area. The main question driving the study was the following: what are important reasons or contextual factors that have influenced the adoption of school leadership policy reforms? The analysis shows that there is an eclectic set of research that covers school leadership from different perspectives. Each tackle the question of school leadership reform adoption from different angles. A policy perspective associates school leadership reforms to contextual changes in relation to decentralisation, school autonomy, accountability or an increasing emphasis on education outcomes. School improvement perspectives acknowledge the key role of school leadership in education change. The research on school leadership impact has contributed to the adoption of school leadership reforms. The school leadership policy perspective shows that countries have introduced school leadership

reforms, with practices varying by country and context. Some have been interpreted as a response to a new public management agenda or to the globalisation of education policies. Findings from this review indicate that whilst there is much research on school leadership, nevertheless, analysis and promotion of policies to support and strengthen school leader roles to support school improvement appears to have received less attention.

Prakhov, Ilya; Sergienko, Denis (2020):

**Matching between students and universities. What are the sources of inequalities of access to higher education?**

In: *European Journal of Education* 55 (2), S. 261–274. DOI: 10.1111/ejed.12389.

*Abstract:*

It is assumed that a perfect balance between student academic achievement and the quality of the university they attend is beneficial both for students and higher education institutions (HEIs). Matching theory predicts the existence of perfect match between the two groups in the absence of transaction costs associated with university enrolment. However, in this study we show cases of mismatch situations in Russia under the Unified State Exam—the standardised student admission mechanism. The reasons for minimal transaction costs and the emergence of unequal access to HEIs were studied. Based on data on Moscow high school graduates who entered university, the determinants of the mismatch between the quality of universities and applicant abilities were assessed. Whilst overall favourable matching results are established, we show that individual student achievement results are subject to the influence of school and family characteristics. Thus, inequality of access can be formed at stages preceding higher education enrolment.

Romito, Marco; Pilutti, Silvia; Contini, Dalit (2020):

**Why do students leave university? Qualitative research at an Italian higher education institution.**

In: *European Journal of Education* 55 (3), S. 456–470. DOI: 10.1111/ejed.12408.

*Abstract:*

In this article, we discuss the results of qualitative research carried out at an Italian university for shedding light on the transition students undergo on entry to university, and for understanding associated difficulties that lead to student drop out. We use Vincent Tinto's and Pierre Bourdieu's theoretical apparatuses for analysing drop out in higher education as a process in which inequalities are expressed and reproduced. The intertwined social and institutional mechanisms, and flawed decision-making processes, that precede entry to university are explored. Particular attention is given to student perceptions of their experiences at university and the factors leading to progressive disengagement and drop out. The empirical material analysed shows that, although access to university is relatively easy within the Italian context, hurdles to the pursuit of a university education are largely hidden. Students who withdraw are those who are unable to embody the codes, rules and functioning of higher education: those who do not manage to internalise the type of disciplined autonomy needed for responding to academic demands. Personal characteristics and background resources are key for enabling students to fit in the academic environment. The ways in which higher education institutions regulate access and structure university life contribute to drop out processes and unequal pathways based on the social background of students. Following Coulon, we conclude by arguing that higher education institutions should develop systemic approaches that commit their structure and personnel to the goal of developing a "pedagogy of affiliation" aimed at fostering—particularly among students from underprivileged backgrounds—the cognitive, social and practical skills needed to prosper in higher education.

Saqipi, Blerim; Rexhaj, Xhavit (2020):

**Moving from survival to development. Experiences in Kosovo from developing academic identity in a transitional context.**

In: *European Journal of Education* 55 (4), S. 528–541. DOI: 10.1111/ejed.12425.

*Abstract:*

The purpose of the study on which this article reports was to elaborate on career trajectories of academics in Kosovo. Particular attention is given to efforts to follow international benchmarks such as the Bologna Process at key stages of Kosovo's historical and political development in the last three decades. In this qualitative study, semi-structured interviews were carried out with eleven academics with and without management experience as well as administrators. Findings revealed that Kosovo's higher education system is characterised by a weak organisational culture and an orientation towards externally driven change. Also, we found that academics perceived their role narrowly. The findings suggest that while higher education in Kosovo has moved towards adopting international benchmarks, the identity of the academics has not evolved in parallel to support the transition. A managerialist approach catalysed by the Bologna Process has helped a transition process in higher education in Kosovo. Finally, we propose that for a context in transition, local meaning-making processes for policy transfer are needed. Moving forward, institutional development should be led by academic managers and should serve the professionalisation of academics in Kosovo.

Šerić, Maja (2020):

The influence of technology-mediated and in-person communication on student satisfaction. The moderating role of national culture.

In: *European Journal of Education* 55 (1), S. 118–133. DOI: 10.1111/ejed.12375.

*Abstract:*

This article analyses the effects of technology-mediated (i.e., social media) and in-person communication (i.e., non-verbal cues) on student satisfaction in a higher education context. Data were collected among 221 college students from the University of Valencia (UVEG) in Spain and analysed from the perspective of the respondents' national culture. Contrary to expectations, the results show that neither one of the social media aspects drives student satisfaction, thus providing support for the technology paradox literature. Instead, three non-verbal communication cues are found to influence student satisfaction, i.e., paralanguage, kinesics, and chronemics. The moderating role of national culture on the examined relationships is also considered. The results reveal that national culture seems to only affect the relationship between chronemics and satisfaction.

Sinnema, Claire; Stoll, Louise (2020):

Learning for and realising curriculum aspirations through schools as learning organisations.

In: *European Journal of Education* 55 (1), S. 9–23. DOI: 10.1111/ejed.12381.

*Abstract:*

How can schools as learning organisations support the realisation of a new curriculum's aspirations? This article describes four common and interrelated challenges—depth, spread, reach, and pace—associated with enacting a new curriculum. It then argues that curriculum capital represented by schools and practitioners that address these challenges and meet associated learning demands—commitment, knowledge, understanding and capability—is essential to ensure that curriculum aspirations are realised. We propose that schools that are learning organisations create the kinds of conditions necessary for responding to the challenges and learning demands. In such schools the considerable individual, collaborative and collective learning needed at many levels is recognised. We highlight how each of the four challenges might be addressed by seven dimensions and four transversals of schools as learning organisations, while recognising that task will be more feasible in systems that are also learning and providing supportive conditions.

Spasovski, Ognen; Pecakovska, Suzana (2020):

The academic profession in North Macedonia. A never ending transition.

In: *European Journal of Education* 55 (4), S. 501–513. DOI: 10.1111/ejed.12419.

*Abstract:*

The context of Macedonian higher education has changed dramatically in the last fifteen years. A rapid increase in the number of public and private institutions and a greater diversity of higher education degrees have not been associated with improvements in quality. The research output of academic staff is modest; academics contribute little to the society's

development. Academia in North Macedonia is under pressure due to chronic underfinancing of higher education and research, and an underdeveloped system of quality assurance, as well as growing expectations for relevance and internationalisation. This article presents an original empirical study on academic staff. It examines how 388 faculty at higher education institutions in North Macedonia perceived changes in the environment of the academic profession, and how changes in their working conditions potentially influence their academic identity and wellbeing. The results are compared to European data. Findings show that about half of research participants believed that the overall conditions for work and the quality of teaching, learning and research have deteriorated in recent years. This contributes to a perception of the academic profession as stressful and unattractive which results in lower levels of overall academic wellbeing which constitutes a threat to academic identity amongst the staff. Consequently, we expect further decreases in motivation, work ethic and productivity in the academic profession, as well as an increase in the desire of academics to leave Macedonia.

Sušanj, Zoran; Jakopce, Ana; Đorić, Ana (2020):

Academics' effectiveness and professional development in Croatia. Challenges for human resource management in higher education institutions.

In: *European Journal of Education* 55 (4), S. 476–488. DOI: 10.1111/ejed.12422.

*Abstract:*

The relationship between higher education and profound global economic, social, technological and political transformations underway in recent decades is attracting growing public and professional interest. In this context, governmental bodies, higher education institutions and academics are under pressure to improve the effectiveness and professional development of academic staff. This article explores the need to adapt current human resource management practices in higher education in Croatia as a response. The article presents recent empirical data from higher education institutions in Austria, Croatia and Finland collected in the international project "Modernisation of Higher Education Institutions through Enhancement of Human Resources Management Function". Descriptive indicators of current human resource management practices in higher education institutions reveal substantially different levels of development and use of certain practices to manage the effectiveness and professional development of academics. This article discusses the role of the human resource function at higher education institutions, the possibilities of using specific human resource development activities designed for different job roles held by academics, the importance of a performance management system that suits the academic environment, and the need for a strategic approach to human resource management at higher education institutions.

Tierno-García, Juana-María; Camarero-Figuerola, Marta; Iranzo-García, Pilar; Barrios-Arós, Charo (2020):

Semi-professional school leadership in Spain. Gender differences.

In: *European Journal of Education* 55 (4), S. 587–601. DOI: 10.1111/ejed.12416.

*Abstract:*

Constructing the identity of school principals is difficult because being a principal requires carrying out complex functions in challenging contexts. Our research addressed semi-professional school leadership in Catalonia, Spain, with a particular focus on differences in the managerial styles of men and women. In Spain, the school management system is semi-professional which means that principals are teachers who take on leadership roles for limited periods. In a descriptive study based on an ad hoc questionnaire administered to a representative sample, we considered the personal and contextual characteristics of elementary school principals. Focusing on the variable of gender, this article analyses principals' reasons for accepting and continuing in their position and principals' priorities when performing their duties; also, their perceptions of various aspects of the school environment that help them in their role. We found significant differences related to gender. While the predominance of male principals in elementary education is declining, female principals, more than their male counterparts, must accept and tackle the challenges associated with contextualized, distributed and pedagogical leadership in conditions leading to overexertion. Many of the principals who were women worked in small, rural or disadvantaged schools. Paradoxically, female principals construct their professional identity in closer alignment with administrative style and with teaching duties than with leadership style. We conclude that these challenges should be taken into account and further investigated to avert the precarious position of women in school leadership.

van Schaik, Patrick; Volman, Monique; Admiraal, Wilfried; Schenke, Wouter (2020):

**Fostering collaborative teacher learning. A typology of school leadership.**

In: *European Journal of Education* 55 (2), S. 217–232. DOI: 10.1111/ejed.12391.

**Abstract:**

Previous research indicates that supportive school leadership is a key condition of collaborative teacher learning. The purpose of this study was to develop a typology of how school leaders foster collaborative teacher learning. We adopted an integrative perspective on leadership by examining both learning-centred leadership and distributed leadership practices that are supportive of collaborative teacher learning. Data were gathered by means of interviews with ten school leaders and a questionnaire that was completed by 39 teachers from six secondary schools in the Netherlands. The aim of the interviews was to identify to what extent school leaders applied learning-centred leadership and distributed leadership practices. The questionnaire measured teachers' perceptions of the role of school leaders in teacher learning. As an outcome of this study, we constructed a typology that provides insights into how school leaders foster collaborative teacher learning. Four types of school leaders were distinguished: (a) integrators of teacher learning, (b) facilitators of teacher learning, (c) managers of teacher learning, and (d) managers of daily school practice. Our findings suggest that integration of learning-centred leadership and distributed leadership practices can help school leaders to support collaborative teacher learning.

Zhang, Wei (2020):

**Shadow education in the service of tiger parenting. Strategies used by middle-class families in China.**

In: *European Journal of Education* 55 (3), S. 388–404. DOI: 10.1111/ejed.12414.

**Abstract:**

Parents in many cultures invest significant proportions of household incomes in the so-called shadow education system of private supplementary tutoring. Parts of the literature attribute intensive tutoring to East Asian cultural traditions and to so-called tiger parenting. Based on a mixed-methods study in Shanghai, this article examines tiger parenting through a socio-economic lens to show the roles of shadow education in achieving parental goals. The study shows that tiger parenting is most evident in middle-class families. In order to transmit or increase social advantages inter-generationally, such parents use private tutoring to prepare their children for successful academic trajectories in mainstream education. The strategy is driven by anxieties related to social status in the rapidly changing risk economy. Shadow education has provided parents with new means to increase family cultural capital which not only facilitates school performance but also reinforces class dispositions. The study highlights the importance of understanding tiger parenting in the culture of class, in addition to other cultural factors. It challenges the simplistic attribution of tiger parenting to Confucianism by revealing dimensions that run counter to the Confucian conception and tradition of parenting. It also extends the conceptualization of family cultural capital by unpacking the processes of tutoring as externalized parenting in the era of global expansion of shadow education.

Zhang, Wei; Bray, Mark (2020):

**Comparative research on shadow education. Achievements, challenges, and the agenda ahead.**

In: *European Journal of Education* 55 (3), S. 322–341. DOI: 10.1111/ejed.12413.

**Abstract:**

This paper reviews research on private supplementary tutoring, widely known as shadow education, during the initial decades of the present century. It takes as its starting point the first global study of the phenomenon, published in 1999, though notes some scattered national and subnational literature prior to that date. During the initial two decades, great expansion of the research on shadow education brought more depth and stronger awareness of commonalities and differences in different cultures. From initial mapping and identification of factors shaping demand came work on ecosystems with deeper sociological and economic analyses, together with greater attention to research methods. The agenda ahead will need to keep up with changing times, e.g., through the impact of technology, and develop stronger interdisciplinarity to explore additional domains. It will also need continued attention to definitions and methods.



## Specials

Baker, David P. (2020):

An inevitable phenomenon. Reflections on the origins and future of worldwide shadow education.

[Thought Piece]. In: *European Journal of Education* 55 (3), S. 311–315. DOI: 10.1111/ejed.12410.

Fullan, Michael (2020):

The nature of leadership is changing.

[Thought Piece]. In: *European Journal of Education* 55 (2), S. 139–142. DOI: 10.1111/ejed.12388.

Harris, Alma (2020):

Leading school and system improvement. Why context matters.

[Thought Piece]. In: *European Journal of Education* 55 (2), S. 143–145. DOI: 10.1111/ejed.12393.

Hooge, Edith (2020):

The school leader is a make-or-break factor of increased school autonomy.

[Thought Piece]. In: *European Journal of Education* 55 (2), S. 151–153. DOI: 10.1111/ejed.12396.

Kobakidze, Magda Nutsa; Suter, Larry E. (2020):

The global diversity of shadow education.

[Thought Piece]. In: *European Journal of Education* 55 (3), S. 316–321. DOI: 10.1111/ejed.12411.

Kools, Marco; George, Bert; Steijn, Bram (2020):

Developing schools as learning organisations - “Why” and “how”?

[Editorial]. In: *European Journal of Education* 55 (1), S. 3–8. DOI: 10.1111/ejed.12384.

Munby, Steve (2020):

The development of school leadership practices for 21st century schools.

[Thought Piece]. In: *European Journal of Education* 55 (2), S. 146–150. DOI: 10.1111/ejed.12394.

## Editorials

Araújo e Sá, Maria Helena; Pinto, Susana (2020):

Introduction: Language management, ideologies and practices in scientific research.

[Introduction]. In: *European Journal of Higher Education* 10 (3), S. 223–230. DOI: 10.1080/21568235.2020.1777452.

### Abstract:

The several challenges posed to Higher Education Institutions by globalisation and internationalisation have been highlighting language issues within scientific research that are related to the naturalisation of English-only policies. Over the last years, this naturalisation has been questioned by some researchers in the area of social sciences, arts and humanities who have discussed the constraints of monolingualism versus the potential of multilingualism in knowledge production, dissemination and circulation. This special issue aims at contributing to a growing debate on language policy and planning within research, by addressing language management, ideologies and practices in diverse key dimensions of scientific research (knowledge construction and dissemination, research assessment, multilingual collaborative research and doctoral education), and bringing together contributors from diversified academic contexts (Brazil, France, Germany, Portugal and Switzerland).

Lehmann, Erik E.; Meoli, Michele; Paleari, Stefano; Stockinger, Sarah A. E. (2020):

The role of higher education for the development of entrepreneurial ecosystems.

[Introduction]. In: *European Journal of Higher Education* 10 (1), S. 1–9. DOI: 10.1080/21568235.2020.1718924.

## Original Articles

Bondestam, Fredrik; Lundqvist, Maja (2020):

Sexual harassment in higher education. A systematic review.

In: *European Journal of Higher Education* 10 (4), S. 397–419. DOI: 10.1080/21568235.2020.1729833.

### Abstract:

Sexual harassment is an epidemic throughout global higher education systems and impact individuals, groups and entire organizations in profound ways. Precarious working conditions, hierarchical organizations, a normalization of gender-based violence, toxic academic masculinities, a culture of silence and a lack of active leadership are all key features enabling sexual harassment. The aim of this study is to review scientific knowledge on sexual harassment in higher education. A thematic focus is on (a) knowledge derived from top-ranked peer-reviewed articles in the research field, (b) the prevalence of sexual harassment among students and staff, (c) reported consequences of sexual harassment, (d) examples of primary, secondary and tertiary preventive measures, and (e) core challenges to research on sexual harassment in higher education. The published research evidence suggests several findings of importance, mainly: (a) prevalence of sexual harassment among students is reported by on average one out of four female students; (b) severe consequences of sexual harassment impacts individuals but the effects on the quality in research and education is unknown; (c) there is almost no evidence

supporting the supposed effects of major preventive measures; and (d) research on sexual harassment in higher education lacks theoretical, longitudinal, qualitative and intersectional approaches and perspectives.

Brorsen Smidt, Thomas; Bondestam, Fredrik; Pétursdóttir, Gyða Margrét; Einarsdóttir, Þorgerður (2020):

### Expanding gendered sites of resistance in the neoliberal academy.

In: *European Journal of Higher Education* 10 (2), S. 115–129. DOI: 10.1080/21568235.2018.1541753.

#### Abstract:

Neoliberalism has long found its way into higher education and made life hard for academics in a number of different ways. The literature that maps out resistance to this development focuses on the gendered aspects of labour-economic issues. However, this study argues that the zeitgeist of neoliberalism has gendered consequences far beyond market-based categories. Thirty-two in-depth interviews with current and former academics at the University of Iceland are analysed. They demonstrate that the conceptualization of gendered sites of resistance is in need of expansion. Academics still resist traditional neoliberal derivatives by (1) exiting the institution (2) complaining through official channels (3) refusing to take part in certain activities or (4) by directly confronting their superiors. However, these resistance strategies harbour new gendered sites of resistance related to tokenism, bullying and gendered harassment.

Cardwell, Paul James (2020):

### Does studying abroad help academic achievement?

In: *European Journal of Higher Education* 10 (2), S. 147–163. DOI: 10.1080/21568235.2019.1573695.

#### Abstract:

Studying abroad as part of a degree has become commonplace for many students in European and other developed countries. Universities actively promote opportunities as part of internationalization strategies. Whilst research has looked into the 'abroad' aspect of study abroad, there is less literature on the 'study' aspect, and in particular, the effects that the period has on academic achievement. This article provides evidence that studying abroad has a beneficial effect on overall academic achievement. The article compares the final degree grades of students at Sheffield Law School (UK) who participated in a year studying abroad, with those who did not. Interviews with students across the period deepen the qualitative dimension to the research by exploring how students felt about their academic experience. Whilst few students opt to go abroad for the purposes of improving grades, most feel that the additional confidence and maturity, alongside deeper knowledge of their subject and a break in the pattern of their studies, contributes to their higher achievement.

Cattaneo, Mattia; Civera, Alice; Meoli, Michele; Paleari, Stefano (2020):

### Analysing policies to increase graduate population. Do tuition fees matter?

In: *European Journal of Higher Education* 10 (1), S. 10–27. DOI: 10.1080/21568235.2019.1694422.

#### Abstract:

Although broadening equal access to higher education has been an objective public policy for decades, little is known about the effectiveness of alternative means for achieving this goal. Moreover, it has raised a need of explaining the heterogeneity in Higher Education attainment across European countries, where high level of graduate population can be observed both in the presence of high- and low-levels of fees. This paper surveys the extant literature providing some background on the economic concepts of higher education market, and reviews key determinants of demand and supply. A theoretical and empirical model of aggregate demand and supply of higher education is derived, with the aim to facilitate the understanding of the challenges in today's higher education systems, as well as the opportunities for development. The model is validated on some exemplary case studies describing different relationships between the level of public investment and levels of graduate population.

Chardenet, Patrick; Ferreira-Meyers, Karen (2020):

### Reasons for describing universities' linguistic capital.

In: *European Journal of Higher Education* 10 (3), S. 241–256. DOI: 10.1080/21568235.2020.1777448.

#### Abstract:

In the process of internationalization of universities, the articulation between local and global contexts depends on various factors including that of linguistic capital, that is to say, the sum of resources and language skills that allow stakeholders, teachers, researchers and students to participate in different levels of knowledge flows. To better understand how this works, the paper proposes some principles of analysis of knowledge flows, based on one of the author's interventions and expertise in academic fieldwork in South America, inspired by the concept of glottopolitics which highlights the impact of speakers as linguistic policy stakeholders whose linguistic activity should be considered in the strategic analysis of organizations. In conclusion, it is suggested that improved knowledge of available linguistic capital within universities will lead to better governance of internationalization strategies by managing language practices between local, regional and international languages.

Conceição, Manuel Célio (2020):

### Language policies and internationalization of higher education.

In: *European Journal of Higher Education* 10 (3), S. 231–240. DOI: 10.1080/21568235.2020.1778500.

#### Abstract:

In the context of education for the global world, internationalization is a strategy and a goal of higher education (HE). In many cases, the conditions for carrying out internationalization are neglected in detriment of its economic and financial impact. The definition of appropriate language policies and their relation to the organization and functioning of institutions at all levels (teaching, research, transfer, governance, etc.) are constitutive aspects of internationalization. This definition considers the need to promote mobility and inclusion of different actors in HE and the need for competitive affirmation at local, national and international levels. Not only the conception of language policies must be clear, but the concept of language must be revisited within its relation to acquisition, construction and dissemination of knowledge in an ecological perspective of multilingual practices in HE, emphasizing that there is no science without languages and without linguistic diversity. In a contextually anchored complexity management framework, the relationship between language policies (or lack thereof) and pedagogical and methodological innovations is referred. This text emphasizes that language policies are essential in internationalization of HE. To achieve this purpose, a new concept of language and an integrated approach of language and knowledge/science are needed.

Gajo, Laurent; Berthoud, Anne-Claude (2020):

### Issues of multilingualism for scientific knowledge. Practices for assessing research projects in terms of linguistic diversity.

In: *European Journal of Higher Education* 10 (3), S. 294–307. DOI: 10.1080/21568235.2020.1777451.

#### Abstract:

This article sets out from the observation that internationalization and contextualization of scientific knowledge increasingly appear to be in conflict, raising the question of the part played by language in the construction, transmission and dissemination of such knowledge. We will start by emphasizing the importance of considering language not just as a communication tool (vehicular function) but as a construction tool (constitutive function). We will then show how the two functions may be presented differently according to the nature of (a) the disciplines involved (natural sciences, humanities, etc.) and (b) the activities observed (teaching, popularization, international publication, etc.). Finally, we will examine the question of language and multilingualism in the assessment of scientific research, and in particular will describe the postures adopted by research advisers in various disciplines. This will enable us to conclude with some reflections on language policy in higher educational and research institutions.

Horváth, László (2020):

**Psychological contract profiling for managing the learning experience of higher education students.**

In: *European Journal of Higher Education* 10 (4), S. 377–396. DOI: 10.1080/21568235.2020.1719174.

*Abstract:*

The quality agenda of higher education has a clear focus on teaching and learning. In this study, we apply a service marketing approach (GAP model) to discover the psychological contract (implicit expectations and obligations) of Hungarian higher education students (N = 356), exploring their expectations, satisfaction, obligations and self-image. Combining the emerged six factors for expectations (personalization, development of soft skills, competent teachers, labour market preparedness, support, flexibility) and three factors of obligations (performance and activity, preciseness and punctuality, obedience and respect), we created Psychological Contract Profile Clusters (outcome-centred, teacher-centred, learner-centred, learning-centred, content-centred and self-centred students). We discuss the possibilities of using the findings in order to enhance the learning experience through psychological profile clustering based quality development.

Jiang, Lina; Kosar Altinyelken, Hülya (2020):

**The pedagogy of studying abroad. A case study of Chinese students in the Netherlands.**

In: *European Journal of Higher Education* 10 (2), S. 202–216. DOI: 10.1080/21568235.2020.1718517.

*Abstract:*

This study aims to explore Chinese students' experiences in the Dutch higher education system with a focus on classroom pedagogy. Based on interviews with 28 Chinese students from eight higher education institutions, it analyses Chinese students' understanding and reflections of teaching and learning practices, and the challenges they encounter. The findings indicate that shifting from China's exam-oriented system and highly teacher-centred education to a more interactive and student-centred pedagogy in the Netherlands has been challenging for the students. The study identified the following aspects as being the most pertinent: comprehension in English, cultural differences, classroom participation, group learning, examination and assessment, critical thinking and creativity, and roles of lecturers. The findings underscore the need for lecturers to provide more support and guidance to Chinese students, and more consideration of the diversity in international classrooms in terms of previous pedagogical experiences, and cultural and linguistic differences.

Johnston, Jame; Reeves, Alan (2020):

**Research in UK universities. A tale of two subjects - Economics and Econometrics; and Business and Management Studies.**

In: *European Journal of Higher Education* 10 (2), S. 164–180. DOI: 10.1080/21568235.2019.1597747.

*Abstract:*

This paper explores the comparative performance of two subject areas (Units of Assessment – UOAs) in the UK national Research Assessment Exercises of 1992, 1996, 2001, 2008 and the Research Excellence Framework of 2014. The Units of Assessment are Economics and Econometrics; and Business and Management Studies. Given the wide range of disciplines in the Business and Management Studies UOA universities have the choice of submitting their economics and econometrics research either to it or to the Economics and Econometrics UOA. Over the period 1992–2014 the number of universities entering the Economics and Econometrics UOA declined significantly in contrast to the growth in the number entering the Business and Management Studies UOA. The reasons for this include the finding that university managers were more likely to tolerate poor performance (measured by internal and external gaps) in Business and Management Studies than in Economics and Econometrics. Considerable differences were found between old (pre-1992) and new (post-1992) universities, with Economics and Econometrics now solely the domain of old universities as new ones have withdrawn. In sharp contrast, Business and Management Studies has a good balance of old and new universities.

José Sá, Maria (2020):

'The secret to success'. Becoming a successful student in a fast-changing higher education environment.

In: *European Journal of Higher Education* 10 (4), S. 420–435. DOI: 10.1080/21568235.2020.1777445.

*Abstract:*

The literature on higher education student success offers a considerable set of definitions of this concept, reflecting its semantic polysemy. This is understandable, inasmuch that the highly competitive environment where higher education institutions operate requires that they constantly seek legitimation and competitive advantage based on their students' success. The purpose of this paper is to understand how the different institutional actors perceive and define higher education student success. The study uses a qualitative methodology and data collection instruments used are semi-structured interviews and document analysis. Results allow concluding that, according to the institutional actors' perceptions, defining success based solely on academic performance is reductionist and limits this concept to only one sphere of the students' global experience. The result of academic performance is a quantitative indicator of student success; however, while being necessary, it is not sufficient to define this concept. This indicator has to be complemented by others so that it can be ascertained whether or not a student has achieved success. Students build their perceptions of success based on the multiplicity and complexity of experiences they go through in higher education, influenced by the HEI features and mediated by their personal history and their life project.

Kemper, Lorenz; Vorhoff, Gerrit; Wigger, Berthold U. (2020):

Predicting student dropout. A machine learning approach.

In: *European Journal of Higher Education* 10 (1), S. 28–47. DOI: 10.1080/21568235.2020.1718520.

*Abstract:*

We perform two approaches of machine learning, logistic regressions and decision trees, to predict student dropout at the Karlsruhe Institute of Technology (KIT). The models are computed on the basis of examination data, i.e. data available at all universities without the need of specific collection. Therefore, we propose a methodical approach that may be put in practice with relative ease at other institutions. We find decision trees to produce slightly better results than logistic regressions. However, both methods yield high prediction accuracies of up to 95% after three semesters. A classification with more than 83% accuracy is already possible after the first semester.

Lüdi, Georges (2020):

Postface.

In: *European Journal of Higher Education* 10 (3), S. 325–332. DOI: 10.1080/21568235.2020.1779774.

*Abstract:*

The contributions in this special issue raise many relevant questions on different levels concerning language policy, the quality of knowledge construction, equality of opportunities, etc. but also, the type of language(s) used in Academia. In summary, a multilingual context and plurilingual practices have a much greater impact on the construction and dissemination of knowledge than assumed by the general public – and many researchers. If the construction of knowledge, in particular in international teams, is linguistically more diverse than its dissemination through publications, the subsequent language choice is not completely predetermined. Besides 'English as Lingua Franca' (ELF), other forms of plurilinguaging or translanguaging confirm the flexibility in implementing multiple repertoires in the construction and transmission of academic knowledge. The history of European science since the Middle Age onwards confirms this assumption in the sense that it can be read like the history of European multilingualism.

Melo-Pfeifer, Sílvia (2020):

Is it just 'black' or 'white'? Multilingual collaborative research seen through the practices of an international research team.

In: *European Journal of Higher Education* 10 (3), S. 308–324. DOI: 10.1080/21568235.2020.1777447.

*Abstract:*

In this contribution, the self-reported linguistic practices of researchers engaged in an international research project are analysed and discussed. These researchers constitute a community of practice of intercomprehension, using mostly romance languages to communicate and, at the same time, also researching the phenomena. The data was collected by means of a questionnaire intended to perceive the linguistic profile of the team, as well as their choices in terms of publication, communication in scientific contexts and daily academic life. The data points towards complex multilingual practices, dependent on the context and the intentions of researchers, making a case for characterising them as agentive, and displaying investment in practices in different languages, according to perceived advantages, in terms of target audiences, disseminating results, and dialogue with other colleagues. Not only do researchers have “complex social history and multiple desires” (Norton, 2000), but these desires can be, or become contradictory and clash. Some signs of tensions in the management of the linguistic resources, and of “linguistic resentment” were observed related to English, but researchers balance this aspect with the acknowledgment that the language is useful to attain certain academic goals. This contribution thus displays the complexity of researchers’ linguistic practices and aspirations.

Müller-Benedict, Volker; Gaens, Thomas (2020):

A new explanation for grade inflation. The long-term development of German university grades.

In: *European Journal of Higher Education* 10 (2), S. 181–201. DOI: 10.1080/21568235.2020.1718516.

*Abstract:*

This article analyses a number of trends in final exam results at selected German universities. Our research covers 12 prominent fields of study from 1960 to 2010. Data prior to 1997 were collected from eight university archives. The first part of the article descriptively presents long-term stable differences between fields of study as well as between universities offering courses in the same fields of study, portraying how grade improvement and cyclical dynamics appear. Using time-series methods, part two analytically reveals a relationship between the numbers of examinations and the level of grades. This relationship differs for two different categories of fields of study: those with a strong dependence on a common nationwide job market and those which are not related to a specific job market. For both groups, grade inflation can be explained by the observation that the cyclic dynamics of grading tends to be stronger for improvement than for worsening.

Overberg, Jasmin; Lehmkuhl, Pia; Schütz, Marcel; Röbbken, Heinke (2020):

(Re)-reforming external quality assurance in higher education – the Finnish case.

In: *European Journal of Higher Education* 10 (4), S. 333–346. DOI: 10.1080/21568235.2020.1718519.

*Abstract:*

In this article, we analyse reforms of academic quality assurance in light of organizational theory using the case example of Finnish higher education. Our purpose is to shed light on the processes behind repeated reforms and the motivation to continuously modify quality models that have only been in use for a relatively short period of time. In our discussion, we propose interpreting the continuous change and strong differentiation of quality management in a positive light. The development, alteration, and promotion of quality management can be considered an attempt at continuous self-improvement; they also significantly contribute to (reform-driven) communication about quality. The changes also serve a number of other functions, which we discuss in the final section of our paper.

Pedro, Eugénia; Leitão, João; Alves, Helena (2020):

Unveiling the relationship between quality of academic life and regional development.

In: *European Journal of Higher Education* 10 (1), S. 48–71. DOI: 10.1080/21568235.2019.1694423.

*Abstract:*

The paper examines the still unexplored role played by quality of academic life (QAL) related to Higher Education Institution (HEIs) students in fostering regional development. The work aims to assess the nature of the relationship between satisfaction and the QAL of HEIs' students; and also to evaluate whether the QAL is associated with the regional development of the HEIs' surrounding areas. The objectives are to identify which areas of academic life influence QAL and what the aggregate effects associated with HEIs are, in terms of regional development. Based on a sample of 719 students from all Portuguese public HEIs, a two-step methodology is applied. Firstly, a selected specification of a structural model (SEM-PLS) is tested to evaluate the impact of administrative management, infrastructure, educational provision and social action on QAL; and secondly, a Two-Stage Least Squares regression analysis evaluates the impact of the HEIs on regional development (NUTSII) using the Synthetic Regional Development Index. The main results reveal a positive and significant relationship between service satisfaction and QAL and statistically negative influence of QAL on regional development, which raises important challenges in terms of future research efforts contrasting high versus low density regions of HEIs influence in the international context.

Pinto, Susana; Araújo e Sá, Maria Helena (2020):

**Researching across languages and cultures. A study with doctoral students and supervisors at a Portuguese University.**

In: *European Journal of Higher Education* 10 (3), S. 276–293. DOI: 10.1080/21568235.2020.1777449.

*Abstract:*

Researching across languages and cultures is a theme increasingly studied in diversified contexts due to the internationalisation of higher education. At the level of doctoral studies, this impacts on the process of doing and supervising a PhD. In Portugal, research concerning this issue is scarce and this paper intends to discuss the meanings and implications of researching in the intersection between different languages and cultures in the context of doctoral education at the Department of Education and Psychology of the University of Aveiro, Portugal, in the perspective of both (national and international) students and supervisors. Results from thematic analysis indicate substantial implications concerning: (i) the supervision process; (ii) researchers' personal and professional development; and (iii) knowledge production and dissemination. In the light of the results, some discussion axes concerning doctoral education will be put forward.

Schenkenhofer, Julian; Wilhelm, Dominik (2020):

**Fuelling Germany's Mittelstand with complementary human capital. The case of the Cooperative State University Baden-Württemberg.**

In: *European Journal of Higher Education* 10 (1), S. 72–92. DOI: 10.1080/21568235.2019.1694421.

*Abstract:*

While research on universities is well elaborated within the field of higher education, less effort has been made to study other institutions of tertiary education. Complementary to the need of hybrid (specific and general) human capital for German Mittelstand firms, the system of tertiary dual education in Germany has succeeded in hitting two birds with one stone. Though Germany has often been criticized for its low rate of university graduates, the critique has largely failed to acknowledge the differentiation of Germany's dual tertiary education model. By highlighting the case of Baden-Württemberg and its Cooperative State University system, we illustrate the diversity of Germany's landscape of higher education institutions. It appears that the availability of a large pool of tertiary dual educated students contributes in particular to the advantage of Mittelstand firms in Baden-Württemberg.

Tang, Hei-Hang Hayes; Chau, Chi-fung Wilton (2020):

**Knowledge exchange in a global city. A typology of universities and institutional analysis.**

In: *European Journal of Higher Education* 10 (1), S. 93–112. DOI: 10.1080/21568235.2019.1694424.



*Abstract:*

In the existing literature of knowledge exchange (KE) and higher education, there is limited but emerging cluster of research which undertakes a comprehensive analysis of various types of higher education institutions and patterns of KE engagement. Employing the empirical example of Hong Kong, this paper examines the interconnections between institutional types and patterns of knowledge exchange (KE) activities in the context of a global city. It found that during the short history of KE policies and activities, all public universities in Hong Kong have been building their capacities for this new intellectual premise in the last decade. Meanwhile, disciplinary comprehensiveness and research/education intensity of the universities affect their institutional responses to the global trend of KE. The typology of higher education institutions suggested by this paper puts forward a perspective to further understand the institutional patterns of KE in the twenty-first century.

Urbanek, Piotr (2020):

### Reform of the higher education system in Poland from the perspective of agency theory.

In: *European Journal of Higher Education* 10 (2), S. 130–146. DOI: 10.1080/21568235.2018.1560344.

*Abstract:*

Agency theory is a theoretical platform used primarily to describe processes related to corporate governance. However, the theory is also being used to describe the processes associated with the functioning of the higher education system. Contractual relationships in this sector make it possible to identify the institutions that may act as either principal or agent, depending on the research perspective. Relationships between the state/government (principal) and public universities (agents) are the most commonly studied paradigm.

The aim of this article is to present proposals for reform of the higher education system in Poland, using agency theory as the research perspective. The most important dysfunctionalities of the current system, viewed as a manifestation of the agency problem, are identified, and the proposed new standards of academic governance are confronted with theoretical mechanisms reducing conflicts of interest: outcome-based and behaviour-based contracts. The main recommendation contained in reform proposals is a desire to increase the institutional autonomy of public universities, leading to a strong leadership of the university authorities.

van Deynze, Freek; Santos, Patricia (2020):

### National policy responses to European institutional pressures on doctoral education. The case of Flanders and Portugal.

In: *European Journal of Higher Education* 10 (4), S. 347–362. DOI: 10.1080/21568235.2020.1756368.

*Abstract:*

During the past two decades, a shared set of norms and ideas on doctoral education and its purposes has emerged. As the EU strives to transform itself into a knowledge society, countries are expected to have more doctorate holders and orient doctoral education towards the non-academic labour market. However, the interaction between the changes on the European and the national level has not been explicitly conceptualized. This study aims to do that, discussing the different ways in which national policy actors have engaged with this European model in doctoral education. By channelling, buffering and filtering these institutional pressures, they navigate the relationship between the European model, their own preferences and the domestic situation. Using document analysis, we address the cases of Flanders and Portugal, two higher education systems which follow this European model, but also note significant differences owing to their institutional legacies and domestic context.

Wild, Steffen; Rahn, Sebastian; Grassinger, Robert (2020):

### Stability and interplay between students' commitment to a study programme and the quality of teaching and their relevance for academic performance in Germany.

In: *European Journal of Higher Education* 10 (4), S. 363–376. DOI: 10.1080/21568235.2020.1719173.

*Abstract:*

Quality of teaching and student commitment to their study programme in higher education are considered to be important aspects of the learning process and of achievement behaviour. The focus of the investigation was to analyse the (1) changes in students' commitment to their study programme and in their perceptions of the quality of teaching, (2) their interactions, and (3) their compound effect on students' overall achievements in the study programme. We analysed data from 402 students in a cross-lagged panel design. Results show that the quality of teaching determines both the level of and changes in students' future commitment to their study programme. Furthermore, students' commitment to their study programme mediated both their perceptions of the quality of teaching and their later academic achievement.

Yair, Gad; Rotem, Nir; Shustak, Elad (2020):

### The riddle of the existential dropout. Lessons from an institutional study of student attrition.

In: *European Journal of Higher Education* 10 (4), S. 436–453. DOI: 10.1080/21568235.2020.1718518.

*Abstract:*

Studies found that students from low socioeconomic backgrounds have higher odds of dropping out from higher education. Academic hardships were also identified as predictors. The current study utilizes data on 45,752 students who started their studies at The Hebrew University of Jerusalem (2003–2015). Descriptive statistics reveal that 18% of all students dropped out, but that this group is heterogeneous. Specifically, 42% of the dropouts left following academic failures. However, 58% of the dropouts took an existential leave – never failing a course though taking a limited number of course credits. To identify possible predictors of those dropouts we employ three advanced models: logistic regressions, neural network models and decision tree models. The three methods converge in predicting dropouts when they fail their courses, take a partial programme, or have extremely low GPAs. However, the models fail in predicting the 'existential dropouts' – the students who never failed, had ostensibly 'ok' grades, and yet decided to leave. The findings set clear criteria for predicting dropout trajectories of academically failing students. We conclude by discussing policy implications that emanate from those new findings and point to the lingering riddle – and the challenge – that existential dropouts constitute.

Yanaprasart, Patchareerat (2020):

### Language of knowledge and knowledge of language. Towards plurilingual sciences?

In: *European Journal of Higher Education* 10 (3), S. 257–275. DOI: 10.1080/21568235.2020.1777450.

*Abstract:*

Academic globalisation and the internationalisation of scientific knowledge currently place higher education between two forces: global competitiveness and innovation on the one hand, local attractiveness and diversity on the other. In view of this double requirement, this paper aims to examine language policy and analyse its impact on language choice and language knowledge requirements in Higher Education Institution curricula. For this purpose, language policy documents of three French-speaking Swiss universities will be compared so as to shed light on their reasons for enhancing plurilingual sciences or hindering academic multilingualism. The study brochures of different disciplines and faculties will be perused and discussed with reference to language needs and language proficiency requirements. It appears that if an explicit and institutionalised language policy is desirable for a coherent and productive teaching and learning outcome on the vertical scale, the influence of the nature of the disciplines on the relation they have with language is a substantial factor in determining language choices. A clear overview of the relationships between factors will contribute to a successful top-down decision.

## Reviews

Gavrila, S. Gabriela (2020):

Paying for the party: how college maintains inequality by Elizabeth A. Armstrong and Laura T. Hamilton, Cambridge, Harvard University Press, 2015, 344 pp., GBP 14.95, ISBN: 9780674088023.

[Review]. In: *European Journal of Higher Education* 10 (2), S. 220–222. DOI: 10.1080/21568235.2018.1554272.

Komljenovic, Janja (2020):

Recruiting international students in higher education. Representations and rationales in British policy by Sylvie Lomer, London, Palgrave Macmillan, 2017, 99,99 EUR (hardcover), ISBN 978-3-319-51073-6.

[Review]. In: *European Journal of Higher Education* 10 (4), S. 454–457. DOI: 10.1080/21568235.2018.1555925.

Sabzalieva, Emma (2020):

25 Years of transformations of higher education systems in post-Soviet countries: reform and continuity edited by Jeroen Huisman, Anna Smolentseva and Isak D. Froumin, Cham, Palgrave Macmillan, 2018, 482 pp., €29.96 (hardcover) or free to download at [www.palgrave.com/de/book/9783319529790](http://www.palgrave.com/de/book/9783319529790), ISBN 978-3-319-52980-6.

[Review]. In: *European Journal of Higher Education* 10 (2), S. 217–219. DOI: 10.1080/21568235.2018.1541051.

## Specials

Correction to: Lee, Soo Jeung and Lars Müller. 2019. “Institutional Stratification and its Effects on Wages of Higher Education Graduates in Germany and South Korea” *European Journal of Higher Education* 9(4). doi:10.1080/21568235.2019.1666290.

[Correction] (2020). In: *European Journal of Higher Education* 10 (1), S. 113.

*Abstract:*

Article title: Institutional Stratification and its Effects on Wages of Higher Education Graduates in Germany and South Korea

Lee, Soo Jeung and Lars Müller. 2019. “Institutional Stratification and its Effects on Wages of Higher Education Graduates in Germany and South Korea” *European Journal of Higher Education* 9(4). doi:10.1080/21568235.2019.1666290

The above-mentioned article belongs to special issue “The role of Higher Education for the development of entrepreneurial ecosystems” but has been misplaced and published in regular issue 9(4), 2019.

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## Editorials

Mok, Ka Ho; Chan, Sheng-Ju (2020):

Promoting global cities status. Talent attraction and retention in Asia.

[Introduction]. In: *Globalisation, Societies and Education* 18 (1), S. 1–6. DOI: 10.1080/14767724.2019.1690732.

Abotsi, Emma (2020):

Negotiating the 'Ghanaian' way of schooling. Transnational mobility and the educational strategies of British-Ghanaian families.

In: *Globalisation, Societies and Education* 18 (3), S. 250–263. DOI: 10.1080/14767724.2019.1700350.

### Abstract:

While scholars are increasingly interested in migrants in the Global North educating their children in their homelands, ethnographic studies of how ideas about being educated are shaped, and young people's accounts of these transnational educational practices, remain under-researched. This paper attends to these gaps by drawing on the ethnographic cases of four London-based, British-Ghanaian youth in boarding schools in southern Ghana. Using the concept of the educated person, it shows how young people shape their own schooling experiences, and those of their Ghanaian peers, just as the practices at the schools shape them, thereby expanding local understandings of being educated.

Adhikary, Rino Wiseman; Hardy, Ian; Lingard, Bob (2020):

Social enterprise as a policy panacea. Panel discussions, data and the cultural formulation of policy in Bangladesh.

In: *Globalisation, Societies and Education* 18 (2), S. 194–207. DOI: 10.1080/14767724.2020.1711708.

### Abstract:

This article illustrates how the British Council Bangladesh (BCB) made use of panel discussions and commissioned research as policy vehicles to persuade the government of Bangladesh of the value of social enterprises for public service delivery, including in education. Drawing upon Appadurai's notion of 'imagined worlds' in relation to influential global processes of educational policy governance, we view support for social enterprises as an instance of the cultural formulation of policy that the BCB sought to enact/steer through a policy network. The social entrepreneurial future of policy and governance was 'imagined' by the network, even as this was negotiated and contested. Panel discussion and commissioned research served as key policy vehicles in modulating discourses and logics demonstrating social enterprise as an imperative culture of governance into the future. Comparison with various 'successful' reference societies/markets also helped frame social enterprises as fostering opportunities for youth and women.

Adrião, Theresa; da Silva, Rui (2020):

Public funding to private providers of compulsory education. Crossed looks between Brazil and Portugal in the context of globalisations.

In: *Globalisation, Societies and Education* 18 (4), S. 420–434. DOI: 10.1080/14767724.2020.1764336.

*Abstract:*

This paper focused on public funding to private providers of compulsory education in the context of globalisations. It analyses the differences and the common points between Brazil and Portugal (from 2014 to 2017) regarding the type of private providers in education, the mechanics and the reasons linked to the public funding to compulsory education private providers. Data collection was based on content analysis of a corpus of documents and interviews. The article shows that in the case of Brazil, the philanthropists are the main promoters of public funding to private providers of compulsory education while, in Portugal the main promoters are the large educational private providers. It also identifies that the public funding to private providers of compulsory basic education is increasing in Brazil and decreasing in Portugal due to governments political and ideological options.

Baranowski, Mariusz (2020):

A contribution to the critique of worthless education. Between critical pedagogy and welfare sociology.

In: *Globalisation, Societies and Education* 18 (4), S. 391–405. DOI: 10.1080/14767724.2020.1732195.

*Abstract:*

The article deals with changes in the area of education, especially at the higher level, after the so-called neoliberal turn of the 1980s. In order to explore the transformation of the sphere of education, the Marxian concept of commodification was used, as well as the four-level approach to the mechanisms of social reproduction of inequalities of Göran Theborn. This allows the introduction of the concept of worthless education, which, in turn, takes into account the role of not only the phenomena of education in the contemporary capitalist society, but also – similarly to the proposal of Max Weber – phenomena that are conditioned by and important in terms of education. Thus outlined research area was confronted with the approach of critical pedagogy and welfare sociology, in order to articulate the social consequences of the process of spoiling education. The main aim of the article is, therefore, to critically analyse the changes in the area of education after the neoliberal turn, which through the concept of ‘worthless education’ allows to see the overt and covert consequences of the ongoing transformations on many levels of society (although attention and examples have been focused mainly on the issue of labour).

Boman, Björn (2020):

What makes Estonia and Singapore so good?

In: *Globalisation, Societies and Education* 18 (2), S. 181–193. DOI: 10.1080/14767724.2019.1701420.

*Abstract:*

Considering high performance in PISA, a case study of Estonia and Singapore is required. Estonia’s economy is not up to par with Singapore. On the other hand, Estonia is more democratic than Singapore. The national IQ levels are higher in Singapore (102) than in Estonia (99.4) but may explain a large portion of the attainment level in both countries. Singapore does also have more highly educated and better paid teachers, as well as a highly skilled foreign workforce. Annual educational quantity is very similar. Therefore, the high scores in Estonia relative to the OECD average and many wealthier western nations remain as somewhat of a minor mystery.

Chang, Chen-Wei; Chan, Sheng-Ju (2020):

Transit point of global talent. Social/cultural dimensions of short-term student circulation.

In: *Globalisation, Societies and Education* 18 (1), S. 30–42. DOI: 10.1080/14767724.2019.1690731.

*Abstract:*

The development of the modern global economy and the national competition in trade and commerce has intensified. Thus, overseas study as a major form of human capital formation in the Asian region tends to be regarded as an economic measure for enhancing workforce quality and national competitiveness. Mainstream discourses on international students at the national level have been instrumental in ignoring the social and cultural dimensions pursued by transnational interaction and understanding. However, in addition to the rapid advancement of internationalisation, international student mobility has become significantly diversified in terms of scenarios, patterns and motivations. In this paper, two short-term study-abroad programmes in Taiwan and Los Angeles were selected to investigate their influence on participants' perception and awareness of intercultural literacy. Results indicate that many participants have been highly motivated to engage in 'local culture, people and tradition'. The international outlook and perspectives of participants have broadened substantially due to these short-term but focused activities. In contrast to the economic purpose of student mobility, the result from this research provides promising information on further raising the young generation's social and culture understanding of other societies and countries by attending such short-term study programme.

Chopra, Vidur; Dryden-Peterson, Sarah (2020):

### Borders and belonging. Displaced Syrian youth navigating symbolic boundaries in Lebanon.

In: *Globalisation, Societies and Education* 18 (4), S. 449–463. DOI: 10.1080/14767724.2020.1744428.

*Abstract:*

We examine the ways in which young Syrian refugees perceive and navigate the symbolic boundaries of belonging when displaced in Lebanon. Using portraiture, we identify three dimensions of belonging for refugees – safety, dignity, and relationships – and we explore the role of education in cultivating each one. We find that educational spaces, such as formal school and informal volunteering experiences, are places where refugee young people are at times able to blur bright boundaries of belonging. We also find that this belonging is tenuous and serves to reinforce boundaries of citizenship, rights, and everyday practices that exclude refugee young people. Our findings emphasize the need for the field of refugee education to address the question of how schools can actively resist and counter state-established bright boundaries of belonging to instead serve as spaces that blur and redefine those boundaries.

Cone, Lucas; Brøgger, Katja (2020):

### Soft privatisation. Mapping an emerging field of European education governance.

In: *Globalisation, Societies and Education* 18 (4), S. 374–390. DOI: 10.1080/14767724.2020.1732194.

*Abstract:*

This paper introduces the concept of 'soft privatisation'. Departing from a review of the literature examining the growing participation of private sector actors in the provision of public education across Europe, the paper investigates how privatisation has emerged in the context of the European Union as a phenomenon embedded in, rather than a replacement of, public education. Through analysing the creation of a European education area – and the move of European education from being a driver for economic growth to becoming an Economy in itself – the paper argues that privatisation in Europe is deeply imbricated with the network modes of public education governance characteristic of the European Union and the Bologna Process. These entanglements have implications both for the transparency and political accountability of private sector actors involved in public education.

Edwards Jr, D. Brent.; Morrison, Jeaná; Hall, Stephanie (2020):

### The suspect statistics of best practices. A triple critique of knowledge production and mobilisation in the global education policy field.

In: *Globalisation, Societies and Education* 18 (2), S. 125–148. DOI: 10.1080/14767724.2019.1689489.

*Abstract:*

The present article addresses the production and global dissemination of ‘policy relevant knowledge’. It not only unpacks the methodological assumptions of a particular type of knowledge production – known as impact evaluations – but also analyses the issue of knowledge mobilisation within the political economy of the global education policy field. Having a critical understanding of impact evaluations is crucial because they are widely regarded as the most valid informational basis from which to make policy decisions. The importance of grasping the methodological limitations and political-economic dynamics that afflict knowledge production and mobilisation is demonstrated through the case of Colombia’s well-known charter school programme. By employing a strategy that has been labelled bibliographic ethnography, this article not only takes a critical look at the knowledge base that has been produced on this programme but also maps the way that evaluations of this charter school programme, despite their limitations, have been cited and invoked in academic and organisational publications to project this programme internationally. The article concludes by offering a theoretically-informed discussion of how we should understand the trajectory of impact evaluations (and other knowledge products) as they cross multiple personal, organisational, political, and discursive contexts.

Eppolite, Mary; Burford, James (2020):

Producing un/professional academics. Category boundary work among migrant academics in Thai higher education.

In: *Globalisation, Societies and Education* 18 (5), S. 528–540. DOI: 10.1080/14767724.2020.1805300.

*Abstract:*

This article explores the process of constituting ‘professionalism’ as a discursive category amongst migrant academics working in Thailand. We animate the conceptual resource of ‘category boundary work’ to examine the inclusionary and exclusionary practices by which ‘un/professionalism’ is produced in the talk of 25 aa-jaan dtàang châat or migrant academics working in Thailand. Throughout our data, the discourse of professionalism was constructed in opposition to three key storylines which constituted the ‘unprofessional migrant academic’ as morally questionable; underqualified; and uncommitted. We argue that the constitution of unprofessionalism matters, producing tangible effects for higher education institutions and academic workers alike.

Falch, Daniel; Hammond, Christopher D. (2020):

Social activism and ‘spaces of autonomy’ in the context of Japan. An analysis of the student movement known as SEALDs.

In: *Globalisation, Societies and Education* 18 (4), S. 435–448. DOI: 10.1080/14767724.2020.1762167.

*Abstract:*

In recent decades Japanese university students have been characterised as politically apathetic and disinterested in organising for grassroots change. Despite a variety of socio-contextual factors that have contributed to this reality, a student movement known as SEALDs emerged in 2015 and successfully mobilised a substantial number of Japanese youth and shifted public discourse on social activism. By taking a case study approach, this paper analyses the movement and focuses on their unique ability to mobilise the masses through a unique utilisation of what Castells terms ‘spaces of autonomy’. The authors argue that while existing in a hybrid of cyberspace and urban space SEALDs was able to resonate with the country through social networking sites, music, fashion, and pop-culture appeal. Unlike other movements that aim to ‘radically disrupt the system’ SEALDs found success through branding and popular appeal. We suggest the case study of SEALDs offers a novel contribution to the research of student activism worldwide, and highlights the importance of social context in any attempt to understand particular manifestations of student-led activism.

Ferrari Martinez, César Augusto (2020):

Student mobility and the production of Chile as an international academic hub.

In: *Globalisation, Societies and Education* 18 (5), S. 553–563. DOI: 10.1080/14767724.2020.1793115.

*Abstract:*

In this paper, an analysis of the spatial production of Chile as an international academic destination for doctoral students is put forward. This arises from the notion of internationalisation as a process of the rescaling of university marketplaces and international students as consumers of global scales of excellence. As such, it proposes the concept of an international academic hub to understand how a space oriented towards a 'global north' is produced and articulated with the guidelines of economic globalisation. Four case studies of interviews with foreign doctoral students in Chile are used to explore narratives of the international in discourses about academic trajectories within the country. The results indicate that Chile is configured as a compensatory destination and that its internationalisation policies indicate a directionality towards globally legitimised destinations.

Fert, Marion (2020):

'Becoming an intellectual'. How Congolese refugee university-students in Rwanda negotiate ideals, expectations and social positionality. How Congolese refugee university-students in Rwanda negotiate ideals, expectations and social positionality.

In: *Globalisation, Societies and Education* 18 (3), S. 317–329. DOI: 10.1080/14767724.2020.1716308.

*Abstract:*

While the number of refugees in tertiary education remains small in comparison to the total number of refugee youths, with 1% of university-students worldwide, their social, economic and political impact in refugee societies is believed to be significant. Yet, the role of higher education in their socialisation, the way humanitarian actors invest in the field of higher education with specific agendas in mind and the ways that these young scholars position themselves in relation to these policies and discourses have remained largely unexplored. Focusing on Congolese refugees studying at a Rwandan University and supported by the world's largest academic scholarship programme funded and administrated by a UN agency, this paper aims to contribute to a better understanding of how students negotiate their identities as 'highly educated persons'. The analysis draws on various forms of what the humanitarian rhetoric calls 'community-based investment' with which students engage in the public space of the camps during summer or semester breaks. The different types of engagement that are discussed in this paper serve as a case study to examine how different understandings and perceptions of 'becoming an intellectual' coexist in individuals' minds, according to the different political subjectivities and regimes they navigate in.

Floyd Ellis, Taylor; Kouritzin, Sandra; Lam, Michelle; Azzahrawi, Rawia; Kolomic, Erica; Osiname, Ayodeji et al. (2020):

Revisiting radical diversity. A philosophy of inclusion premised on the selective rejection of origins.

In: *Globalisation, Societies and Education* 18 (2), S. 221–231. DOI: 10.1080/14767724.2020.1711709.

*Abstract:*

This article addresses the political philosophy of a border position articulated by de Oliveira Andreotti (2011. "(Towards) Decoloniality and Diversity in Global Citizenship Education." *Globalisation, Societies and Education* 9 (3–4): 381–397) with reference to the Latin American Modernity/Coloniality Research Group. This border epistemology will be discussed in the context of the claims of radical diversity as necessary in decolonial thinking and political theory. The article consists of a first half which considers the question of a centre and the problems associated with borders in comparison with Fanon (2004. *The Wretched of the Earth*. New York: Grove Press, 2008. *Black Skin, White Masks*. New York: Grove Press). The second half consists of an analysis of narrative responses from a grad seminar on decolonising methodologies which considered de Oliveira Andreotti's (2011. "(Towards) Decoloniality and Diversity in Global Citizenship Education." *Globalisation, Societies and Education* 9 (3–4): 381–397) work in the Winter Term of 2018.

França, Thais; Cairns, David (2020):

South-South student migration. Socially integrating students from Portuguese-speaking Africa at UNILAB, Brazil.

In: *Globalisation, Societies and Education* 18 (5), S. 578–588. DOI: 10.1080/14767724.2020.1805301.



*Abstract:*

The Brazilian University for International Integration of the Afro-Brazilian Lusophony (UNILAB) was created to host students from Portuguese-speaking Africa and Brazil. In this article, we look at the aims and objectives of UNILAB, which include the social integration of these students at the university. We present results from interviews conducted at UNILAB in 2018 with 63 international and domestic students. Analysis of this material shows that despite acknowledgement of the value of internationalisation at UNILAB, the social integration level of Portuguese-speaking students from outside Brazil at the university is characteristically weak among the interviewees, a situation they attribute to a lack of suitable preparation for staff at the host institution and prejudice towards African students in the local community. We consider what these findings mean for the future of UNILAB and the development of Global South-South student migration.

Goh, Daniel P. S. (2020):

### Affective identities and the recontextualisation of elite schools for globalisation in Singapore.

In: *Globalisation, Societies and Education* 18 (2), S. 208–220. DOI: 10.1080/14767724.2020.1712191.

*Abstract:*

This paper discusses how the elite schools in Singapore have been recontextualising their pedagogical programmes, as the public education system adjusts to the developmental state's balancing act to continue with nation building while remaking Singapore into a global city. The elite schools have been updating their pedagogical programmes to produce the new generation of national leaders and, at the same time, preserve the formally meritocratic system amidst the challenges of internationalisation and increasing inequalities as Singapore globalises. Sociological studies of the reproduction of elites in schools have largely taken their theoretical cues from Pierre Bourdieu. However, the focus on character building, symbolic capital and cultivation of noblesse oblige is not sufficient to account for the educational reproduction of elites in globalising societies, at least for the case of Singapore. Instead, I draw on the works of Basil Bernstein on pedagogic identities to look at the historical pedagogical realignments in four elite schools in Singapore and argue that the focus has shifted to personality cultivation, emotional control and worlding activism. The result is the shaping of affective identities that promise to empower students to navigate and move between the global and local and engage the class inequalities that they contribute to.

Golyagina, Alena (2020):

### The complexity of globalisation in Russian higher education. A case of the accounting discipline.

In: *Globalisation, Societies and Education* 18 (4), S. 464–479. DOI: 10.1080/14767724.2020.1743648.

*Abstract:*

The paper investigates the influences of globalisation on Russian higher education in accounting. Drawing on interviews with academic staff and secondary data sources, the paper discusses the tensions between local and global influences in higher education. The paper argues that globalisation has an ideological impact on accounting educators in Russia and shapes the accounting education discourse. Global discourse is seen as exclusionary, value-laden, capitalistic, imperialistic and marketing-focused. These changes result in the marketisation of Russian universities and may eventually lead to decreased educational quality and value of the academic profession.

Hajisoteriou, Christina; Angelides, Panayiotis (2020):

### Examining the nexus of globalisation and intercultural education. Theorising the macro-micro integration process.

In: *Globalisation, Societies and Education* 18 (2), S. 149–166. DOI: 10.1080/14767724.2019.1693350.

*Abstract:*

Our goal in this article is to examine the nexus of globalisation and intercultural education through macro-micro integration. We, thus, aim to enrich the debate on globalisation by theorising the macro-micro integration process. To better explain issues regarding macro-micro integration we examine examples stemming from the phases of the development of globalised policies of intercultural education by international organisation, while transcending to the

phases of adoption, and implementation of such policies in national and local contexts. This article concludes with suggestions about future research focusing on the globalisation of education, in general, and the globalisation of intercultural education, in particular.

Halfman, Jordi (2020):

An educated Sint Maartener? National belonging in a primary school on Sint Maarten.

In: *Globalisation, Societies and Education* 18 (3), S. 290–302. DOI: 10.1080/14767724.2019.1662280.

*Abstract:*

Both in academia and in everyday discourse, the belief in the (re)production of national ideology and related civil culture(s) within state schools has remained strong. This idea(l) has also become salient among a growing number of educational specialists, anti-colonial activists and policymakers on Sint Maarten, the Dutch or southern side of the bi-national, Caribbean island St. Martin. Drawing on fourteen months of fieldwork I show how the different elites' imaginations of the nation were remade and unmade by the teacher and pupils in a sixth-grade classroom in a public school. Lingering colonial relations, ongoing migration and popular culture challenged a well-bounded, shared imagination of the educated Sint Maartener.

Hoechner, Hannah (2020):

Senegalese migrants' children, homeland returns, and Islamic education in a transnational setting.

In: *Globalisation, Societies and Education* 18 (3), S. 264–276. DOI: 10.1080/14767724.2020.1722071.

*Abstract:*

Homeland visits and stays have only recently begun to receive attention within the growing literature on the religious beliefs and practices of 'second generation' Muslims in Western contexts, just as African Muslims have largely been neglected within this emerging field. Drawing on data collected over a total of 14 months among Senegalese migrant communities in the greater New York area, and in Islamic schools receiving migrants' children in Dakar, Senegal, this paper outlines how young people's homeland returns for the sake of religious education give rise to complex negotiations of meaning and identity.

Hou, Yung-Chi (Angela) (2020):

Quality assurance of joint degree programmes. What Asia can learn from Erasmus Mundus joint degree programmes in Europe.

In: *Globalisation, Societies and Education* 18 (1), S. 19–29. DOI: 10.1080/14767724.2019.1690083.

*Abstract:*

Over the past decade, with the support of Erasmus Mundus, the number of joint degree programmes in Europe has increased rapidly. In Asia, joint degree programmes have also gained popularity due to the growth of transnational higher education in the region since 2000. However, a joint degree programme is a highly complex and coordinated activity for the university partners involved. Cooperation and coordination are crucial for the quality of any joint degree programme. This study primarily explores QA approaches to European joint degree programmes and their current development in Asia.

Howard, Adam; Pine, Jamie; Muench, Weston; Peck, Sarah (2020):

Securing eliteness. Class strategies of an elite school in Chile.

In: *Globalisation, Societies and Education* 18 (5), S. 564–577. DOI: 10.1080/14767724.2020.1816160.

*Abstract:*

The ways in which elite schools in Chile reproduce power and privilege within the nation's highly inequitable schooling system are largely ignored by researchers and the general public. In this article, the authors address this gap by identifying and exploring the primary class strategies that an elite school employs to secure their elite status. Through these strategies, the school keeps their community closed to the outside world, promotes shared values within their community, and remains faithful to founding principles in their educational project. These strategies allow the school to uphold strong social isolation, to shield them from public scrutiny, to cultivate elite subjectivities, and to forge a framework through which hierarchies are established. The authors argue that these class strategies not only secure the school's elite status and reputation but also are central in maintaining and advancing their students' class positioning in Chile.

Jin, Wei; Wen, Jianbo; Zhou, Manli (2020):

What hindered the implementation of university internationalisation plan? Case study of a top research university in China.

In: *Globalisation, Societies and Education* 18 (1), S. 66–78. DOI: 10.1080/14767724.2020.1704502.

*Abstract:*

Many Studies have been conducted on the internationalisation of higher education. Yet little is known about institutional plans for internationalisation on an operational level. This paper was written to provide some insight into the current barriers to the implementation of internationalisation plans. The authors present a case study of internationalisation plan underway in a Chinese top research university. An in-depth critical analysis of the case leads to the conclusion that the diversified understanding of the goals, meaning, strategies of internationalisation among different participants within the university, especially between faculty and administrative staffs involved in the initiation of the plan, caused deviation from their international practice and further hindered the implementation of the plan.

Kaland, Ole Johannes (2020):

The cultural production of the 'quality citizen'. Internalisation, appropriation and re-configuration of suzhi discourse among migrant youths in Shanghai, China.

In: *Globalisation, Societies and Education* 18 (3), S. 303–316. DOI: 10.1080/14767724.2019.1700352.

*Abstract:*

This article focuses on Chinese state conceptualisations of the educated person, seen to be necessary for the continued national progress. Government campaigns provide clear narratives about the quality citizens that will ensure this will happen. Such narratives paradoxically also target rural people, migrant workers and their offspring for holding the country's development back, despite their cheap labour being fundamental to the country's economic boom. Based on child and youth-focused anthropological research in Shanghai between 2010 and 2012, this article focuses on how migrant youths reflect on, challenge and appropriate state narratives about who the educated person is in contemporary China.

Kandiko Howson, Camille; Lall, Marie (2020):

Higher education reform in Myanmar. Neoliberalism versus an inclusive developmental agenda.

In: *Globalisation, Societies and Education* 18 (2), S. 109–124. DOI: 10.1080/14767724.2019.1689488.

*Abstract:*

Myanmar has been transitioning to a parliamentary democracy following a long period of authoritarian military rule, with higher education positioned as a catalyst of and for change. This paper explores the policy reform texts through discourse analysis and the process of their enactment by senior university leaders. Two discourses emerge, one of neoliberalism and the role of globalisation, competition and marketisation. Another adopts traditional Myanmar values and argues for an inclusive, developmental agenda based on local needs using culturally sensitive approaches. The article explores the complimentary and contradictory nature of these approaches and the consequences for reform efforts.

Kobakhidze, Magda Nutsa (2020):

**Desacralising teachers. Inside Myanmar's educational capitalism.**

In: *Globalisation, Societies and Education* 18 (5), S. 481–494. DOI: 10.1080/14767724.2020.1776098.

**Abstract:**

This study focuses on the changed roles and symbolic identities of Myanmar teachers under the forces of marketisation and the privatisation of education. Private tutoring by school teachers is used as an example of what society perceives to be the incursion into education of market-oriented values that are incompatible with traditional morals. The theoretical framework draws on Durkheim's concept of the sacred and its interpretations in neo-Durkheimian scholarship, particularly cultural sociology. The main argument presented revolves around the idea that the marketisation of education is profaning the teaching profession. Based on qualitative data from a larger three-year study conducted in eight Yangon schools, combined with textbook and document analysis, the study highlights the patterns of exceptional respect traditionally afforded to Myanmar teachers. This is then contrasted with the consequences of the growing marketisation of educational values through tutoring. The study identifies tutoring as a force polluting into what society perceives to be a sacred profession. Although bringing much-needed economic benefits to teachers, in the eyes of society, it has corrupted the idea of teachers as sacred individuals. This analysis enables critical reflection on the privatisation of education and its consequences for the lives of teachers, which are still under-researched.

Lipura, Sarah Jane; Collins, Francis Leo (2020):

**Towards an integrative understanding of contemporary educational mobilities. A critical agenda for international student mobilities research.**

In: *Globalisation, Societies and Education* 18 (3), S. 343–359. DOI: 10.1080/14767724.2020.1711710.

**Abstract:**

The study of international student mobilities (ISM) has increased substantially over the last two decades. Following trends in institutional and policy debates on the broader internationalisation of education, researchers have paid considerable attention to questions about why, where, how and under what circumstances people engage in educational migration. As the field of ISM has matured, however, it has also taken shape around distinct frameworks wherein little cross-fertilisation appears to be occurring and where a series of normative narratives have emerged. In this paper we evaluate the extant scholarship on ISM and argue that there are significant blind spots in current research and that there is a need for a greater focus on interdisciplinary conversations that can address the changing characteristics of educational migration internationally. In particular, we argue that researchers have remained preoccupied on researching international students at particular points in time, have over emphasised the centrality of privilege and youth and been too focused on Westward mobility. In concluding, we set an agenda for future research on ISM that addresses three key challenges: analysing the connection between imagination and action; the relationship between life course, privilege and precarity; and accounting for the recent diversification and stratification of ISM.

los Reyes, Elizer Jay Y. de (2020):

**'Left-behind' to 'get-ahead'? Youth futures in localities.**

In: *Globalisation, Societies and Education* 18 (2), S. 167–180. DOI: 10.1080/14767724.2019.1700351.

**Abstract:**

This paper explores how left behind children (LBCs) of emigrant women experience and make use of familial and educational investment on 'getting ahead' in thinking about their futures. On the one hand, these efforts of Filipino families figure in the imaginary of transnational migration as the ticket to better life. On the other hand, it surfaces in Philippine education's desire for global competitiveness through educational reform. This paper argues that these attachments to 'getting ahead' in life and in education have resulted to LBCs being 'left behind' in physical, structural, and figurative terms. They grapple with these failed promises by tapping into local collective solidarities and breaking away from previously circulated imaginaries of the good life in assessing potential mobile futures.

Luczaj, Kamil (2020):

**Conceptualising the academic periphery. The case of Eastern European academic systems.**

In: *Globalisation, Societies and Education* 18 (5), S. 511–527. DOI: 10.1080/14767724.2020.1789450.

**Abstract:**

The purpose of this paper is to investigate if foreign-born academics employed in Poland and Slovakia have a sense of being marginalised in the global world of knowledge production, and, if so, what are the basic indicators of this marginalisation. The paper is based on 100 qualitative in-depth interviews conducted in Poland and 40 interviews conducted in Slovakia. All interviewees agreed that Poland and Slovakia were peripheries but they conceptualised their peripheral status in many distinctive ways. The paper discusses six indicators of peripheral status of Eastern Europe academic systems, referred to as 'status periphery', 'career periphery', 'workplace periphery', 'mental periphery', 'language periphery', and 'relational periphery'. The discussion focusses on how these two exemplary post-communist European peripheries differ from other academic peripheries.

Hayden, Mary; McIntosh, Shona; Sandoval-Hernández, Andrés; Thompson, Jeff (2020):

**Global citizenship. Changing student perceptions through an international curriculum.**

In: *Globalisation, Societies and Education* 18 (5), S. 589–602. DOI: 10.1080/14767724.2020.1816158.

**Abstract:**

The extent to which education has a long-term impact on the way students view themselves and the world is a key question, not least when curricula with an international character claim to develop attributes aligned with global citizenship. To our knowledge, there have been few, if any, longitudinal studies that assess the impact of curricula that make such claims. Examining students' and alumni perceptions of an experiential element of one particular curriculum designed with this aim, the International Baccalaureate Diploma Programme, we found that some of the most marked effects stress individual benefits. This raises questions about the potential of an international curriculum, such as that explored here, to disrupt existing attitudes and behaviours in such a way as to make a sustainable better world for all.

Mills, David (2020):

**The epistemic politics of 'academography'. Navigating competing representations of Africa's university futures.**

In: *Globalisation, Societies and Education* 18 (5), S. 541–552. DOI: 10.1080/14767724.2020.1814701.

**Abstract:**

This paper investigates the epistemic politics at work in radically contrasting academic representations of African university futures. Euro-American policy entrepreneurs and research funders call for major investments in Africa's scientific research training capacity to strengthen the continent's integration into a global knowledge system. Meanwhile, African social scientists and humanities scholars critique the epistemological hegemony of 'Western' models of the academy, and call for the decolonisation of African universities.

This paper sets out a three-step approach to dealing with the politicisation of 'academography' (Thorkelson 2016) in this decolonial moment. The first step is to acknowledge how epistemic power relations shape all analytical moves. The second is to recognise that 'generative antagonisms' (Burawoy 2004) are inherent to disciplinary knowledge production. The third is to develop an ethnographic sensitivity to everyday academic practice within these institutional worlds and epistemic cultures. Together these moves offer space for dialogue between different visions of African higher education.

Mok, Ka Ho; Lang, Simon; Xiao, Han (2020):

**The quest for global talent for changing economic needs. A study of student mobility and job prospects for returnees in China.**

In: *Globalisation, Societies and Education* 18 (1), S. 79–96. DOI: 10.1080/14767724.2019.1690734.

*Abstract:*

Aspiring to become a world power in an increasingly globalised world, the Chinese government recognises the importance of restructuring its economic structure to sustain its economic structure to sustain future economic growth. The Chinese government has also tried to adopt appropriate measures to transform not only the economic structures but also the education systems to produce future workforce with adaptive skills catering for the changing economic and labour market needs. The major objectives of this article is to critically examine the major motivations of students choosing international learning programmes either on offer in the mainland or studying abroad, and their career developments after returning home.

Newman, Anneke; Hoechner, Hannah; Sancho, David (2020):

### Constructions of the 'educated person' in the context of mobility, migration and globalisation.

In: *Globalisation, Societies and Education* 18 (3), S. 233–249. DOI: 10.1080/14767724.2019.1677219.

*Abstract:*

This special issue showcases ethnographies with young people in the Global South which draw on the common conceptual umbrella of the 'identity of the educated person' to unpack novel intersections between mobility, migration and education in the context of globalisation. Overarching themes include how definitions of the educated person are shaped by diverse identity constructions and axes of difference, notions of discipline and hardship, and global discourses and concepts which travel across international space. Definitions of the educated person are contested through migration processes, and young people's agency within and beyond schools, through consumption practices and appropriation of popular culture.

Rey, Jeanne; Bolay, Matthieu; Gez, Yonatan N. (2020):

### Precarious privilege. Personal debt, lifestyle aspirations and mobility among international school teachers.

In: *Globalisation, Societies and Education* 18 (4), S. 361–373. DOI: 10.1080/14767724.2020.1732193.

*Abstract:*

Recent decades have seen an exponential growth in the field of international schools, and a concurrent rise in the number of young Anglo-Saxon teachers overseas. Such mobile teaching careers have largely been presented in terms of emphasising exploration, travel and lifestyle-related migration. While acknowledging such factors, we also draw attention to financial constraints, and in particular, to the challenge of personal debts, which weighs heavily over many Anglo-Saxon teachers. We therefore discuss international teachers' mobile trajectory in terms of a balancing act of negotiation between lifestyle and financial factors and point to a strategic trade-off between the two. Moreover, by emphasising the neglected aspect of indebtedness, we argue that, while a key point of appeal for such teachers' participation in the international school sector lies in the ostensible participation in the carefree, privileged environment of lifestyle migration that would have been out of reach for them otherwise, in reality, such horizons of opulence are limited, as teachers are locked into a precarious system that offers little protection and is highly unpredictable. In this context, the accumulation of professional experience provides only a limited pathway for assuming control over one's future destiny/destination – be it professional, geographic, or financial – and at times may even backfire.

Sancho, David (2020):

### Exposed to Dubai. Education and belonging among young Indian residents in the Gulf.

In: *Globalisation, Societies and Education* 18 (3), S. 277–289. DOI: 10.1080/14767724.2020.1736836.

*Abstract:*

This paper explores the life experiences, identities and trajectories of young Dubai-born Indians living in the Arab Gulf. It seeks to contribute to an emergent body of research on the formation of diasporic identities and forms of belonging among South Asians in the Gulf, which underscores the ways in which migrants articulate forms of cultural belonging in a context where they are denied the right to citizenship. Building on the notion of the 'educated person', the paper argues that education constitutes an important, yet overlooked, basis for forms of cultural belonging in Dubai.

Takkaç Tulgar, Ayşegül (2020):

The effects of native versus multicultural classes on teacher self-efficacy. A case study of Turkish instructors.

In: *Globalisation, Societies and Education* 18 (5), S. 603–618. DOI: 10.1080/14767724.2020.1816340.

*Abstract:*

The globalisation of the world reflected its inevitable effects in language classrooms which unite students from different cultures. In such classrooms, instructors' sense of self-efficacy is affected by classroom multiculturalism. Setting out from the paucity of research on classroom nativity and multiculturalism as factors influencing instructor self-efficacy, this descriptive case study offers a comparative presentation of self-efficacy experiences of nine Turkish instructors teaching Turkish in both native and multicultural classes. The data were collected through semi-structured observations, participant notes and open-ended questions and conventional content analysis was adopted to analyse the data. The results pointed at three major areas affecting the participants' self-efficacy beliefs and experiences: educational issues, interactional issues and cultural issues. The participants noted that native and multicultural classes have their peculiar characteristics affecting their teaching self-efficacy. In line with the results, some suggestions are made.

Torres, Carlos Alberto; Tarozzi, Massimiliano (2020):

Multiculturalism in the world system. Towards a social justice model of inter/multicultural education.

In: *Globalisation, Societies and Education* 18 (1), S. 7–18. DOI: 10.1080/14767724.2019.1690729.

*Abstract:*

Multiculturalism burst in Asia with the winds of globalisation. Fuelled by immigration, cultural hybridity and normative regimes from multilateral and bilateral organisations, multiculturalism is a new challenge for Asian economies, their politics of culture and their higher education institutions. Moreover, although heavily implemented from the start of the last century in the United States and in Europe to some extent, multiculturalism and multicultural education signify a premise in constructing models of cosmopolitan democracies and what has been known as 'global citizenship education'. Drawing from the more mature experiences of the European Union (EU) and the United States in this field, this article traces the theoretical contours of and debates within multiculturalism. The article also focuses on the learning experience across borders, which is well represented in international comparative education studies. It probes the occurrence of any crisis in the field of multiculturalism in the United States and EU. Lessons learned from a comparison of the U.S. and EU experiences may be instructive to the Asian economies and cultures that are dealing with multiculturalism as a new force in the world system.

Tran, Ly Thi; Rahimi, Mark; Tan, George; Dang, Xuan Thu; Le, Nhung (2020):

Post-study work for international graduates in Australia. Opportunity to enhance employability, get a return on investment or secure migration?

In: *Globalisation, Societies and Education* 18 (5), S. 495–510. DOI: 10.1080/14767724.2020.1789449.

*Abstract:*

In a competitive international education market, the opportunity to gain post-study work experience in the host country is one of the key drivers of international students' decision making and critical to education export, especially in top destination countries, such as Australia, Canada, the UK and US. Understanding the impacts of post-study work for international graduates is crucial for both host countries' international student recruitment and employment agendas and their ethical commitment to delivering on promise to the international cohort. Drawing on analysis of government policies and in-depth interview data, this study provides evidence about the effects of the post-study work policy in Australia. The overarching view from international graduates indicates that the temporary graduate visa does not seem to provide them with a competitive advantage in the Australian labour market as employers either are unclear about this visa or hesitate to recruit those on this visa. However, the visa brings multiple side benefits, including the chance to round off their employability skills, improve their English proficiency, and get a return on investment in overseas study. Many international graduates see the post-study work visa as a pathway to permanent residency despite the fact that visa reforms have broken the direct education-migration pathway.

Wu, Manfred Man-fat (2020):

### Second language teaching for global citizenship.

In: *Globalisation, Societies and Education* 18 (3), S. 330–342. DOI: 10.1080/14767724.2019.1693349.

#### Abstract:

English is a lingua franca of the world, and therefore English language teaching is an ideal means for global citizenship education. This paper aims to review existing theories and to make recommendations on second language teaching for global citizenship education. A Kantian perspective on global citizenships is adopted. Results of discussions suggest that Global Englishes Language Teaching (GELT) offers a way out to the dilemma of inequality caused by native-speakerism and equality in global citizenship. Together with the notion of Linguistic Imperialism, GELT enables the blending of Kant's cosmopolitan right and hospitality right which have been neglected in literature.

Yang, Rui (2020):

### Benefits and challenges of the international mobility of researchers. The Chinese experience.

In: *Globalisation, Societies and Education* 18 (1), S. 53–65. DOI: 10.1080/14767724.2019.1690730.

#### Abstract:

Globalisation and the shift towards a knowledge economy have made researchers among the most sought-after resources. International research mobility has been encouraged at policy levels and has remarkably increased in the past decade. Meanwhile, concerns of policy makers about the possible loss of such human capital are also rapidly growing. This article reports major literature findings on the international mobility of researchers. It then examines China's loss of researchers and how the country attempts to reverse the brain drain. It argues that China needs to reform its academic culture to lure back its best minds from overseas and retain them.

Yonezawa, Akiyoshi (2020):

### Challenges of the Japanese higher education Amidst population decline and globalization.

In: *Globalisation, Societies and Education* 18 (1), S. 43–52. DOI: 10.1080/14767724.2019.1690085.

#### Abstract:

The Japanese higher education system has struggled with a demographic decline of the university-age population since the 1990s. The expected shrinkage of the overall consumer market due to ageing also significantly pressures Japanese enterprises to expand business in the global market outside Japan. Under these conditions, Japanese universities, heavily reliant on the national language and culture, are facing pressure to internationalise their outlook and operations. However, brain drain is a topic lacking in active discussion, partly because of the continuing inward-oriented preferences of Japanese students, which is aimed towards traditional career mobility within Japanese companies.

Yoshida, Masami; Khlaisang, Jintavee; Xiong, Chun (2020):

### Use of the Genuine Progress Indicator in global education.

In: *Globalisation, Societies and Education* 18 (2), S. 97–108. DOI: 10.1080/14767724.2019.1689487.

#### Abstract:

This study examined the effects of introducing a Genuine Progress Indicator (GPI) in global education at the university lesson. The indexes of GPI were organised using dashboard indexes of the United Nation's Sustainable Development Goals (SDGs). Data on the students' impression and evaluation scores of their reports were compared. It was found that students felt a sense of positive familiarity and considered all subtopics important, and GPI could be introduced at the same level of learning difficulty as SDG dashboard indexes. The GPI functioned as a catalyst to understand world issues regardless of students' prior knowledge and experiences.



Zhu, Yidan (2020):

Transnationalizing lifelong learning. Taking the standpoint of Chinese immigrant mothers.

In: *Globalisation, Societies and Education* 18 (4), S. 406–419. DOI: 10.1080/14767724.2020.1762168.

*Abstract:*

This paper examines the dynamic intersection of lifelong learning, transnational migration and migrant motherhood by locating Chinese immigrant mothers' transnational learning and mothering experience. It aims to understand how Chinese immigrant mothers learn mothering skills, reconstruct identities, and practise mothering in transnational spaces. Based on 30 in-depth interviews with Chinese immigrant mothers in Canada, this paper finds three major dimensions of immigrant mothers' transnational lifelong learning practice: (1) the good mother/bad mother binary and motherhood learning; (2) lifelong learning within transnational families; and (3) learning mothering as transnational cultural capital. This paper argues that taking Chinese immigrant mothers' learning and mothering experience as a standpoint is critical to view transnational lifelong learning as non-linear, fluid, and dynamic. This perspective could assist scholars to acknowledge the experience, identity, work, and knowledge of immigrant mothers, to highlight the intersectionality of race, gender, and class, critically analyse the public/private binary and the learning space of lifelong learners, to reflect on the relationship between learning, mothering and transnational cultural capital, and to examine the race, gender and class relations underlying the changing meanings of lifelong learning in the context of transnational migration.

## Specials

## Original Articles

Anderson, Vivienne; Rabello, Rafaela; Wass, Rob; Golding, Clinton; Rangi, Ana; Eteuati, Esmay et al. (2020):

### Good teaching as care in higher education.

In: *Higher Education* 79 (1), S. 1–19. DOI: 10.1007/s10734-019-00392-6.

#### Abstract:

Care has received relatively little attention in higher education (HE) literature. However, literature alluding to care reveals contrasting perspectives. Some scholars diminish care concerns as a product of the marketised university, where students-as-consumers insist on 'safe' teaching and the avoidance of 'troublesome knowledge'. Others position care as an ethical pedagogical stance, given the power asymmetries inherent in university life. Some suggest that attention to care in HE is risky, since it troubles gendered boundaries between public and private life, and rationality and emotion. In this article, we discuss a research project that explored diverse students' conceptions of good teaching and effective learning at a research-intensive university in Aotearoa New Zealand, using focus group discussions, critical incident technique and photovoice. Participants included 55 Maori, Pacific, international and (other) local students enrolled in Health Science and Humanities subjects. Although care was not the focus of the study, all cohorts of students represented care as a key marker of good teaching. They described good teachers as people who care about their discipline, care about teaching and care about students, powerfully influencing students' engagement with subject matter, enthusiasm for learning and aspirations for the future. While some students acknowledged and lamented their position as consumers in marketised HE, they also revealed an awareness of the factors that constrain teachers' capacity to care and expressed gratitude for teachers' investment in students. We argue for the need to recognise teaching in HE as cognitive, emotional and embodied work; to acknowledge teachers' powerful influence on students; and to avoid simplistic representations of both teachers and students in contemporary HE.

Andreani, Martino; Russo, Daniel; Salini, Silvia; Turri, Matteo (2020):

### Shadows over accreditation in higher education. Some quantitative evidence.

In: *Higher Education* 79 (4), S. 691–709. DOI: 10.1007/s10734-019-00432-1.

#### Abstract:

Accreditation systems in higher education are widespread both in the USA and in Europe. However, numerous reservations have appeared in the literature about whether these systems can comprehend and represent the quality of university courses. This study sets out to contribute to this debate by discussing whether the results of the recent university teaching accreditation system in Italy are influenced by the characteristics of degree programmes, their performance, and the characteristics of incoming students. Whilst addressing this research question, this paper intends above all to give a methodological contribution by proposing an evidence-based approach that tackles the limits found in the literature in relation to university accreditation and quality assurance.

Bacher, Johann; Fiorioli, Elisabeth; Moosbrugger, Robert; Nnebedum, Chigozie; Prandner, Dimitri; Shovakar, Nadine (2020):

### Integration of refugees at universities. Austria's more initiative.

In: *Higher Education* 79 (6), S. 943–960. DOI: 10.1007/s10734-019-00449-6.

*Abstract:*

The so-called refugee wave in the summer of 2015 led to an impressive wave of helpfulness in Austrian society. Universities Austria (uniko)-the umbrella organization of the 22 public universities in Austria-set up and launched an initiative called MORE. MORE provides refugees and asylum seekers with additional opportunities and perspectives that go beyond basic tools for survival. All 22 public universities implemented MORE, albeit in different ways. The article draws on a specific case-the MORE initiative-which aims to integrate refugee students into university life and higher education, as well as on data collected within the scope of evaluating the particular cases at hand. Analysis focuses on whether MORE has contributed to integrate refugee students. Drawing on different integration theories, the findings of this evaluation provide an insight as to how integration is achieved and affected by influencing factors such as personal characteristics, the usage of program elements, etc. Hence, the paper gives insight in the applicability of different integration theories and may be helpful for improving MORE or similar initiatives. The results confirmed the assumptions of modern sociological integration theories. Universities who offer the MORE program can conclude that they should take care of special, vulnerable groups, and that they should offer more than language classes in order to foster integration. Integration depends on the characteristics of the refugee group, the general societal and political climate, and on the specific attitudes towards the group in question.

Barnard, Rachel A.; Shultz, Ginger V. (2020):

“Most important is that they figure out how to solve the problem”. How do advisors conceptualize and develop research autonomy in chemistry doctoral students?

In: *Higher Education* 79 (6), S. 981–999. DOI: 10.1007/s10734-019-00451-y.

*Abstract:*

While the paths after graduate school are increasingly varied, the central goal of doctoral programs remains to develop independent researchers. Given the important role of doctoral advisors in the socialization and progress-making of doctoral students, we conducted semi-structured interviews with faculty advisors who regularly advise chemistry doctoral students from three chemistry departments with rotation programs for their first-year students. In contrast to existing studies documenting advisee perspectives of research autonomy, this work focuses particularly on the advisor perspective. After open coding these interviews, we found a breadth of ideas and approaches to developing research autonomy. The faculty advisors conceptualized research autonomy in their first-year doctoral students as enthusiasm or curiosity for their research or research area. The advisor’s approaches to developing and promoting autonomy in doctoral students varied widely, and some went so far as to not develop autonomy in new students but to “screen” for it. Finally, different subdisciplines in chemistry provide unique opportunities as well as constraints for advisors and students. We discuss the implications of these findings for doctoral students, advisors of doctoral students, administrators, and research advisors of undergraduate students.

Barone, Carlo; Assirelli, Giulia (2020):

Gender segregation in higher education. An empirical test of seven explanations.

In: *Higher Education* 79 (1), S. 55–78. DOI: 10.1007/s10734-019-00396-2.

*Abstract:*

Gender segregation in higher education (GSHE) is recognized as a key factor to explain the persistence of gender inequalities in the labor market despite the reversal of gender gap in educational attainment. Women are systematically overrepresented in fields of study, such as social sciences and the humanities, which offer relatively poor labor market prospects; at the same time, they are underrepresented in fields that perform above the average, as engineering and ICT. Several explanations for GSHE have been proposed in the literature, but their explanatory power has to be assessed yet. Using a rich longitudinal dataset on a recent cohort of Italian upper secondary school leavers, in this paper we jointly test seven potential mechanisms for GSHE. Our results show that rational choice explanations-such as skill-based explanations and gender differences in career preferences-fail to account for GSHE. On the contrary, expressive motivations related to preferences for school subjects and for specific occupations are found to mediate to a significant extent GSHE. However, our most important result concerns the key role of curricular track choice at upper secondary level which, alone, mediates two third of the gender difference in access to the humanities and social sciences and one third of the gender difference in access to engineering and ICT.

Barrett, Beverly; Fernandez, Frank; Gonzalez, Elsa M. (2020):

### Why universities voluntarily pursue US accreditation. The case of Mexico.

In: *Higher Education* 79 (4), S. 619–635. DOI: 10.1007/s10734-019-00427-y.

#### Abstract:

Academic leaders at universities around the globe pursue US accreditation as a result of increasing globalization and internationalization of higher education. Few studies have examined administrators' experiences with US accreditation. We address the following research question: Why do some private higher education institutions in Mexico pursue and maintain accreditation by US accreditation agencies? We present findings from an exploratory qualitative study of the perceptions of higher education administrators and faculty from three private institutions in Mexico: Instituto Tecnológico de Estudios Superiores de Monterrey (Tec Monterrey or ITESM), Universidad de las Américas Puebla (UDLAP), and Centro de Enseñanza Técnica y Superior (CETYS). We identify two isomorphic processes that led the universities to undergo review by US accreditors and discuss how those processes relate to time and location. Additionally, we discuss how administrators discussed accreditation as an interplay between internal leadership motivations and responses to external influences. Finally, participants see accreditation as part of larger efforts related to pursuing international academic recognition and educational quality. At the end of the paper, we discuss implications for future research and practice.

Bird, K. Schucan; Pitman, Lesley (2020):

### How diverse is your reading list? Exploring issues of representation and decolonisation in the UK.

In: *Higher Education* 79 (5), S. 903–920. DOI: 10.1007/s10734-019-00446-9.

#### Abstract:

There is a growing impetus, from university students and administrations, to decolonise the curriculum and develop diverse reading lists. Yet, there is limited theoretical or empirical analysis of the authorship of current reading lists to justify this imperative. The present study developed and applied a method for auditing the authorship on reading lists of two modules, one from science and one from social science, in a research-intensive British university. The paper explores whether these reading lists can be considered descriptively representative of the student body or scholarly community. The analysis of reading lists found empirical basis for concerns that university curricula are dominated by white, male and Eurocentric authors, with some exceptions. The reading lists did not represent the diverse local student body but came closer to representing the demographic profile of academic staff. To interpret these findings, the paper argues that reading lists have a role to play in decolonising our universities, and offer opportunities to critique and deconstruct disciplinary boundaries. Further research is required to explore student and staff views of reading lists and the meaning of diversity, to evaluate existing tools, and address barriers to decolonising our curricula on a global scale.

Bovill, Catherine (2020):

### Co-creation in learning and teaching. The case for a whole-class approach in higher education.

In: *Higher Education* 79 (6), S. 1023–1037. DOI: 10.1007/s10734-019-00453-w.

#### Abstract:

There is a wide range of activity in the higher education sector labelled 'students as partners' and 'co-creation in learning and teaching'. Several frameworks have been proposed to map and categorise existing partnership and co-creation roles, activities, research, and practice. In this paper, I synthesise some of these frameworks to illustrate how the predominant focus in the international literature has been on partnership projects that select small groups of often already super-engaged or privileged students to participate. In contrast, co-creation in learning and teaching, embedded within the curriculum and involving a whole class of students, has been largely overlooked. I explore the potential of co-creating learning and teaching with a whole class of students (including face-to-face, blended, and online settings, and including lectures, tutorials, laboratories, and other methods of teaching); in other words, it is co-creation integral to students' programmes and courses of study. I argue that whole-class approaches to co-creation may be inherently more inclusive of students than other approaches to co-creation and that this approach both relies upon, and contributes towards, building positive relationships between staff and students, and between students and students. I explore some of the challenges of whole-class co-creation in learning and teaching, and I also argue that the benefits suggest this is currently an underutilised and researched approach internationally.

Brotherhood, Thomas; Hammond, Christopher D.; Kim, Yangson (2020):

**Towards an actor-centered typology of internationalization. A study of junior international faculty in Japanese universities.**

In: *Higher Education* 79 (3), S. 497–514. DOI: 10.1007/s10734-019-00420-5.

*Abstract:*

This paper offers new qualitative insights into ongoing internationalization processes in Japanese higher education. Drawing on ideas from migration studies and informed by analysis of junior international faculty members' (JIFs) experiences in Japanese universities, we posit a novel, actor-centered typology of internationalization that delineates between integration, assimilation, and marginalization of mobile actors, and considers their implications in practice. Twenty-three interviews were conducted with JIFs from a variety of disciplines and institutions across Japan. Findings indicated a pattern of disillusionment with their role in internationalization, as many perceived themselves to be tokenized symbols of internationalization rather than valued actors within it. Participants identified various barriers which prevented them from participating in the academic "mainstream" and confined them to peripheral roles. We argue that their experiences are indicative of assimilative and marginalizing forms of internationalization, which pose persistent barriers to reform in Japanese universities despite decades of state-sponsored internationalization.

Coates, Hamish; Croucher, Gwilym; Weerakkody, Umesha; Moore, Kenneth; Dollinger, Mollie; Kelly, Paula et al. (2020):

**An education design architecture for the future Australian doctorate.**

In: *Higher Education* 79 (1), S. 79–94. DOI: 10.1007/s10734-019-00397-1.

*Abstract:*

Doctoral training continues to grow in scale and scope in Australia, but has been subjected to far less design and improvement compared with other facets of higher education. Governments and universities engage in ongoing change which helps respond to opportunities and challenges but also leads to a proliferation of options and approaches. The current research study was seeded and shaped by the ambitious view that despite such refinement the doctorate remains in need of much bolder and deeper design, and particularly design with an education focus. This paper reports outcomes from a four-year national project which sought to articulate a doctoral design architecture. The paper discusses framing contexts and concepts, design and characteristics of the doctoral architecture, then implications for sectoral, institutional and individual practice. It concludes that this kind of architecture can provide a useful guide for growth.

Coleman, Thomas E.; Money, Arthur G. (2020):

**Student-centred digital game-based learning. A conceptual framework and survey of the state of the art.**

In: *Higher Education* 79 (3), S. 415–457. DOI: 10.1007/s10734-019-00417-0.

*Abstract:*

Student-centred learning forms a major driver behind educational policy and practice in the modern day. With a drive towards embracing the possibilities of technology within the classroom, especially digital video games, it is vital to have an understanding of where such games are delivering and where their potential has yet to be explored. With this in mind, it is important to survey the existing literature to establish the level to which the promise of student-centred learning is being delivered through digital video games. This study presents a conceptual framework based upon a systematic literature review of developments in student-centred digital game-based learning, and seeks to establish the extent to which all tenets of student-centred learning and principles of digital game-based learning are embraced within such applications. A thematic analysis identifies the common themes of game and intervention design while integrating and conceptually linking the key concepts of student-centred learning and digital game-based learning. This leads to the development of a conceptual framework allowing classification of the literature according to common themes. Inclusion criteria include the presence of student-centred learning concepts, with a game-based focus including specifically digital video games. Inclusion was limited to papers published since 2007. The literature analysis identifies a number of themes; these were primarily the types of player engagement: single player, mixed and multiplayer, along with principles of game design and the key tenets of student-centred learning. A preponderance of games and interventions utilising single player experiences and focusing on implementing the active learning tenet of student-centred learning were observed. Areas relating to multiplayer engagements and the social aspects of student-centred learning such as mutual respect receive comparatively

less attention in games and research. In order to fully embrace the possibilities offered by student-centred digital game-based learning, it is important not to neglect lessons learned in the development of student-centred learning to its current state. Aspects such as peer-based learning and building relationships between students and teachers have been found important in traditional learning and must be investigated and adapted to new media, including games, as new technologies enter the educational mainstream. Further research into the effects of designing games around these multiplayer aspects, and better defining the role of teachers and educational staff in digital game-based learning, may demonstrate ways to develop and create educational experiences that better engage and prepare students.

Cook-Sather, Alison (2020):

**Respecting voices. How the co-creation of teaching and learning can support academic staff, underrepresented students, and equitable practices.**

In: *Higher Education* 79 (5), S. 885–901. DOI: 10.1007/s10734-019-00445-w.

*Abstract:*

Analyses of how staff and student voices are, or are not, respected in higher education typically unfold in separate conversations. In this discussion, I use narrative analysis of several sources—primary research data, informal participant feedback, and participants’ published essays—to present a case study of how the co-creation of teaching and learning through one pedagogical partnership program brings the voices of staff and students into dialogue. The case study reveals how participating staff and students can develop voices that both speak respectfully and are self-respecting and that can, in turn, contribute to the development of more equitable classroom practices. I provide context for this case study by bringing together key points from literature on staff voice and on student voice, defining co-creation, describing the partnership program, and explaining my research method. The case study itself is constituted by the voices of staff and students who have participated in the partnership program. Drawing on staff words, I show how co-creation supports those staff members in developing voice through dialogue with a diversity of students’ voices; generating ways of discussing and addressing inequity; and constructing more equitable classroom approaches. Drawing on students’ words, I show how co-creation supports those students in developing voice by positioning them as pedagogical partners to staff and inviting them into dialogue with their staff partners; affirming that they can carry those voices into courses in which they are enrolled; and emboldening them to participate in ongoing conversations about the experiences of underrepresented and underserved students.

Cotronei-Baird, Valeria Stella (2020):

**Academic hindrances in the integration of employability skills development in teaching and assessment practice.**

In: *Higher Education* 79 (2), S. 203–223. DOI: 10.1007/s10734-019-00405-4.

*Abstract:*

The development of employability skills is an important graduate outcome of most contemporary university degrees. Given the critical role of academics in teaching and assessing curriculum, they are held responsible for furthering the employability skills development of university graduates; yet little is known about the factors that hinder academics in integrating employability skills into the university curriculum. Based on the Theories of Action Framework, this research compared academics’ espoused understanding of employability skills and reported practice against their actual practices to identify the hindrances. Their understandings of employability skills and of their espoused practice were collected through interviews with academics and content analysis of curriculum documents. The data, drawn from direct observation of teaching and assessment practices and follow-up interviews, were analysed to investigate actual teaching and assessment practices. The findings indicate a disjuncture between espoused practice and actual practice. The disjuncture can be explained by the individual nature of teaching and assessment practice that is influenced by academic experience, position, and disciplinary boundaries. As such, academics face a number of competing challenges, constraints, and demands within the scope of their practice that impede the consistent and systematic integration of employability skills in the university curriculum.

Courtois, Aline; Veiga, Amelia (2020):

**Brexit and higher education in Europe. The role of ideas in shaping internationalisation strategies in times of uncertainty.**

In: *Higher Education* 79 (5), S. 811–827. DOI: 10.1007/s10734-019-00439-8.

*Abstract:*

Based on thematic data analysis of reports from a qualitative cross-country study, the article explores the perceptions of Brexit and collaborations with the UK in different EU countries through the lens of discursive institutionalism. We suggest that in the context of uncertainty characteristic of the post-Brexit referendum period, ideas related to economic concerns and strategic repositioning of national higher education systems subsume the values attached to the European dimension of higher education and research policies. The ideal of educational cooperation based on cultural diversity and national varieties is overridden by concerns expressed in terms of economic rationales. These findings corroborate research that argues that collaboration/cooperation has become a pragmatic and instrumental endeavour. In time, and if the current climate of uncertainty persists, this may further reconfigure institutional strategies and lead institutions to focus on problem-solutions rather than the pursuit of the political ends of cooperation.

Delval, Anne-Sophie; Buhlmann, Felix (2020):

**Strategies of social (re)production within international higher education. The case of Swiss hospitality management schools.**

In: *Higher Education* 79 (3), S. 477–495. DOI: 10.1007/s10734-019-00419-y.

*Abstract:*

Globalisation has led to the transformation of the field of higher education, including an increase in international students' mobility and new offers of internationalised educational curricula "at home". This evolution provides new opportunities for both intentional and non-intentional strategies of educational internationalisation, which are a potentially important part of the social mobility and reproduction of the middle and upper classes. This article investigates the students of Swiss hospitality management schools (SHMSs)-institutions of higher education that are often privately run and characterised by a high degree of internationalisation. We explore the configurations of these students' "cosmopolitan capital" (a combination of cultural, linguistic, social, and institutionalised assets acquired through transnational mobility or exposure to an international environment), and we ask how these configurations vary with regards to their social backgrounds, specifically concerning their proximity to the cultural versus the economic pole of the class structure. We carried out a multiple correspondence analysis of three dimensions of cosmopolitan capital of 381 students, used cluster analysis to identify five configurations of cosmopolitanism and then tested for the social characteristics of these students' parents by using a multinomial regression model. Our results showed various strategies of the accumulation, conversion and legitimization of cosmopolitan capital, and they emphasised the role that this form of capital plays in the mobility and reproduction strategies of these students' families.

Elmira, Elza; Suryadarma, Daniel (2020):

**Financing tertiary education in Indonesia. Assessing the feasibility of an income-contingent loan system.**

In: *Higher Education* 79 (2), S. 361–375. DOI: 10.1007/s10734-019-00414-3.

*Abstract:*

This paper examines the feasibility of an income-contingent loan system to finance tertiary education in Indonesia. Using graduates' income data from the 2015 National Labor Force Survey, we modeled the life-cycle income distribution of university graduates using unconditional quantile regression. We used these estimates to simulate different income-contingent loan (ICL) schemes to observe the effect on the amount of repayment, length of repayment, government subsidy, and repayment burden of males and females in different quantiles of income. We simulated three loan schemes: without real interest, with a 25% surcharge on the total loan, and with 2% real interest. Implicit government subsidy was lowest with the 25% surcharge scheme. Results showed that ICL with a lower repayment burden is feasible in Indonesia and can increase access to tertiary education. We also discussed the administrative capacity among tax authorities.

Flores, Maria Assuncao; Brown, Gavin; Pereira, Diana; Coutinho, Clara; Santos, Patricia; Pinheiro, Claudia (2020):

**Portuguese university students' conceptions of assessment. Taking responsibility for achievement.**

In: *Higher Education* 79 (3), S. 377–394. DOI: 10.1007/s10734-019-00415-2.

**Abstract:**

After 20 years of the Bologna Declaration, Portuguese universities claim to be implementing student-centred and involved assessment practices. Student conceptions of assessment matter when innovations and reforms in assessment practices are being implemented. This study is part of a larger research project entitled "Assessment in higher education: the potential of alternative methods" funded by the Portuguese Foundation for Science and Technology (Government Funding Agency) (PTDC/MHCCED/2703/2014). This paper surveys a large sample (N = 5549) of Portuguese students in five public universities with a Portuguese version of the Students Conceptions of Assessment (SCoA-VI) inventory, previously validated in Brazil. Confirmatory factor analysis recovered the eight SCoA factors reported in the Brazilian context. Differences in mean score for the eight factors were trivial for institutional and student factors. Overall, students agreed that assessment for student improvement was not ignored. Scale inter-correlations revealed interesting inverse relations between improvement and irrelevance functions.

Ghani, Usman; Zhai, Xuesong; Spector, J. Michael; Chen, Nian-Shing; Lin, Lin; Ding, Donghong; Usman, Muhammad (2020):

**Knowledge hiding in higher education. Role of interactional justice and professional commitment.**

In: *Higher Education* 79 (2), S. 325–344. DOI: 10.1007/s10734-019-00412-5.

**Abstract:**

Recent research has focused on students' knowledge sharing behavior and its driving factors, which promote the knowledge transmission and exchange in different educational settings. However, little research has focused on factors that inhibit knowledge sharing. Based on social learning theory and social cognitive theory, the current study investigates the relationships between knowledge hiding behaviors and students' belief about interactional justice and professional commitment. Based on 312 reliable questionnaires collected from Chinese and international postgraduate students in China, this study explored postgraduate students. Three knowledge hiding behaviors include playing dumb, evasive hiding, and rationalized hiding, all of which is negatively related to interactional justice. Furthermore, the moderating effect of professional commitment was found to influence evasive hiding more significantly than the other two aspects of knowledge hiding. Based on the findings of the study, implications are elaborated for learners, supervisors, and higher education.

Gomez Soler, Silvia C.; Abadia Alvarado, Luz Karime; Bernal Nisperuza, Gloria Lucia (2020):

**Women in STEM. Does college boost their performance?**

In: *Higher Education* 79 (5), S. 849–866. DOI: 10.1007/s10734-019-00441-0.

**Abstract:**

This article uses an added value measure to assess the gender-specific impact of attending a STEM (Science, Technology, Engineering and Math) program. Using the results of the mandatory Colombian national exit exams, we compare the math and reading scores at the end of high school and at the end of college by gender. A difference-in-differences technique combined with propensity score matching is used to address selection bias. We find that the gender-related achievement gap in math and reading scores increases after college affecting women. The gap is larger for those individuals studying a STEM major in comparison with a non-STEM major. Moreover, we find that the gender gap is higher in public and accredited universities.

Gruzdev, Ivan; Terentev, Evgeniy; Dzhafarova, Zibeyda (2020):

**Superhero or hands-off supervisor? An empirical categorization of PhD supervision styles and student satisfaction in Russian universities.**

In: *Higher Education* 79 (5), S. 773–789. DOI: 10.1007/s10734-019-00437-w.



*Abstract:*

This article presents the results of a cross-institutional survey on PhD students' supervision at Russian universities. It is aimed at answering three questions concerning (1) styles of PhD supervision and their prevalence, (2) the relation between supervision style and PhD students' satisfaction with their supervisor, and (3) the relation between supervision style and PhD students' expected time-to-degree. We propose the empirically driven categorization of six supervision styles: superhero, hands-off supervisor, research practice mediator, dialogue partner, mentor, and research advisor. The most problematic category, characterized by providing no help for PhD students, was named "hands-off supervisors." For this category PhD students reported the lowest level of satisfaction, and the highest expected time-to degree. Nonetheless, the large share of PhD students who are satisfied with hands-off supervisors may evidence a presence of a disengagement compact between PhD students and supervisors in Russian universities. Two categories of supervisors characterized by the highest level of PhD students' satisfaction and shortest expected time-to-degree were named "superheroes" and "mentors." These supervisors are reported to perform managerial and expert functions, which emphasizes the critical importance of these functions.

Haas, Christina; Hadjar, Andreas (2020):

### Students' trajectories through higher education. A review of quantitative research.

In: *Higher Education* 79 (6), S. 1099–1118. DOI: 10.1007/s10734-019-00458-5.

*Abstract:*

With the increasing availability of high-quality longitudinal data on students in higher education, scholars' interest in how students proceed through higher education has risen. So far, the research field is diverse in theoretical perspectives and methodological approaches. Thus, based on 27 studies published in (higher) education research journals during the past two decades, this literature review provides an overview of the theoretical concepts, methodologies and main empirical findings in the study of students' trajectories in higher education. The results depict a US dominated research field. Most theoretical frameworks are based on student's decision-making. Across different country contexts and research designs-ranging from descriptions of student trajectories to studies predicting who engages in which types of trajectories to sequential trajectory reconstruction-we found that historically disadvantaged groups in higher education such as students from low social origin follow less linear and less smooth higher education trajectories. However, while the field of comparative education is growing steadily and may significantly contribute to explaining the link between the realization of students' opportunities and the way how higher education is designed and implemented both on the national and local level, there were no cross-country comparison studies on higher education trajectories.

Han, Shuangmiao (2020):

### Policy experimentation and power negotiation in China's higher education reforms.

In: *Higher Education* 79 (2), S. 243–257. DOI: 10.1007/s10734-019-00407-2.

*Abstract:*

China has adopted policy experimentation (PE) as a means of introducing and testing innovative policy options for reforms in higher education (HE). This paper explores how PE plays out in the HE sector, involving state actors and university actors in a dynamic interactive process and bringing about institutional changes. This paper proposes a theoretical categorisation to understand four types of PE that occurred in China's HE reforms, i.e. directive, authorised, exploratory and retrospectively authorised experiments. It discusses an empirically informed case study to illustrate the experiment process characterised by central-local interaction and intentionally ambiguous boundaries. The PE approach enables state-university interactions and power negotiations that create and maintain strategy space for consensus-building. The state, however, retains ultimate authority for legitimatising, selecting and expanding policy experiments. It is best understood as 'elite-enabled experimentation within existing political hierarchies'. This study provides a distinctive perspective for understanding and explaining the power dynamics embedded in China's HE reform process and more broadly the evolution of higher education governance.

Harring, Niklas; Jagers, Sverker C.; Matti, Simon (2020):

### Higher education, norm development, and environmental protection.

In: *Higher Education* 79 (2), S. 291–305. DOI: 10.1007/s10734-019-00410-7.

#### *Abstract:*

There is a debate on whether higher education in the social sciences generates stronger democratic and environmental norms among students. In our study, we focus on students' perceptions about legitimate rule in the case of environmental protection. We contribute to this debate by using a unique longitudinal data set from seven universities and university colleges in Sweden. Our results show that higher education in the social sciences does not generate stronger democratic or environmental norms, at least not in the case of environmental protection. We discuss why this is the case and refine our results further by looking at individual-level factors, such as gender and ideology.

Harris, Michael S.; Ellis, Molly K. (2020):

### Measuring changes in institutional diversity. The US context.

In: *Higher Education* 79 (2), S. 345–360. DOI: 10.1007/s10734-019-00413-4.

#### *Abstract:*

The level of diversity present in a national higher education system plays an important role in enabling the system to respond to a variety of demands from society. Within the US context, diversity is often hailed as a strength although research has found a consistent decline in institutional diversity for the last 40 years. This article uses data from 1989 to 2014 to compare the level of diversity present across American higher education. The article draws on institutional theory to understand how institutions change in response to environmental pressures impacting institutional diversity. The findings demonstrate that institutional diversity has continued to decrease and demonstrates how institutional decisions impact overall diversity present in the system. To conclude, the article discusses the causes and potential concerns for national systems that experience decreased institutional diversity. An improved understanding of the current state of institutional diversity provides useful measures for evaluating national higher education systems and raises critical questions for the mission and activities of higher education institutions themselves.

Highman, Ludovic (2020):

### Irish technological universities and the binary divide. A qualitative study.

In: *Higher Education* 79 (4), S. 637–656. DOI: 10.1007/s10734-019-00428-x.

#### *Abstract:*

This article aims to examine and analyse the perceptions of senior policy-makers, lobby group representatives and both higher education academics and professional managers on the establishing of technological universities in Ireland, and its implications for the fabric of the Irish higher education system, in terms of the structure of the Irish higher education system, academic drift and the diversity of Irish higher education institutions.

Hora, Matthew T. (2020):

### Hiring as cultural gatekeeping into occupational communities. Implications for higher education and student employability.

In: *Higher Education* 79 (2), S. 307–324. DOI: 10.1007/s10734-019-00411-6.

#### *Abstract:*

With the rising price of college and anxiety about graduates' job prospects, the employability of graduates is a dominant narrative shaping postsecondary policy and practice around the world. Yet, completion and the acquisition of a credential alone do not guarantee employment, and research on hiring reveals its subjective aspects, particularly when cultural signals of applicants are matched to those of organizations. In this qualitative study of 42 manufacturing firms in the US state of Wisconsin, cultural capital theory is used to investigate the prevalence of hiring as "cultural matching" using

thematic and social network methods to analyze interview data. Results indicate that 74% of employers hire for cultural fit, but, contrary to prior research, this matching process is not simply a matter of fitting applicant personalities to monolithic “organizational cultures” or interviewer preferences. Instead, employers match diverse applicant dispositions (e.g., personality, attitude) and competencies (e.g., cognitive, inter-personal, intra-personal) to the personalities of existing staff as well as to industry-specific norms that are dominant within specific departments. The paper explores implications of these findings for college students, faculty, and career advisors, especially in light of the potential for discriminatory practices during the job search and hiring process.

Huang, Futao; Horiuchi, Kiyomi (2020):

### The public good and accepting inbound international students in Japan.

In: *Higher Education* 79 (3), S. 459–475. DOI: 10.1007/s10734-019-00418-z.

#### Abstract:

The purpose of this study is to depict how the public goods of internationalizing higher education in Japan, especially inbound international students, are viewed by various stakeholders based on the main findings from semi-structured interviews. The interviewees include key persons from different levels or fields in Japan: officials from MEXT (the Ministry of Education, Culture, Sports, Science, and Technology), national agencies in relation to international students and international cooperation, a national-level professional association of higher education research, both top-level and middle-level leaders of one research-intensive national university, academics from Humanities, Engineering, and Economics, administrators in charge of internationalization of their respective universities, and international students from diverse backgrounds. The study begins with a brief introduction to the research background, before presenting the analysis and main findings from the interviews. It concludes by arguing how the public good and its relationship to the internationalization of Japanese higher education are viewed and interpreted by different stakeholders, and offering brief implications for research and practice.

Jalote, Pankaj; Jain, Bijendra Nath; Sopory, Sudhir (2020):

### Classification for research universities in India.

In: *Higher Education* 79 (2), S. 225–241. DOI: 10.1007/s10734-019-00406-3.

#### Abstract:

Classification of higher education institutions (HEIs) of a country allows viewing higher education as a differentiated system which respects the diversity of purposes and aspirations of different HEIs. Classification is fundamentally different from ranking, which aims to rank universities in order with higher ranked HEIs being “better” than lower ranked ones. In classification, the universities in a class are grouped by their purpose and mission, and no attempt is made to rank them. Carnegie Classification of universities in the USA is the oldest classification system, which groups universities into a few categories like Research Universities, Masters Universities, Baccalaureate Universities, and Secondary. This classification has been found extremely useful over decades for various purposes including policy making and planning. This has thus motivated similar exercises in many other countries, particularly for research universities. In this paper, we evolve an approach to classify research universities in India, based on the Carnegie Classification approach. We propose a simple basic criterion for identifying research universities, and apply it to the top 100 universities and top 100 engineering institutions in India. Using this criteria, 40 universities and 32 engineering institutions were identified as research HEIs. Based on the data on the level of research activity in these HEIs, we apply a clustering approach similar to the one Carnegie uses to group research HEIs into two sub-categories, viz. “highest research activity” and “moderate research activity”. The clustering approach identified six universities and eight engineering institutions in India to be in the highest research activity category. The level of research activity uses data on the number of full time PhD students, the number of faculty, research grants, and publications.

James, Melissa A.; Derrick, Gemma E. (2020):

When “culture trumps strategy”. Higher education institutional strategic plans and their influence on international student recruitment practice.

In: *Higher Education* 79 (4), S. 569–588. DOI: 10.1007/s10734-019-00424-1.

*Abstract:*

Many higher education institutions (HEIs) seek to attract international students through marketing and recruitment activity. At the same time, HEIs are developing strategic plans that suggest internationalisation strategies such as the recruitment of students are an important consideration for their institutions and these strategies and implementation differ by their individual settings and culture. This study uses an international comparison of three universities to explore how HEIs’ strategic plans shape or mediate international student recruitment practice within higher education. The activity theory is used to compare institutional strategies as an activity by considering how practitioners in different parts of the world shape the meaning, outcome and tensions of their practice. Using this approach, the study examines international student recruitment at three HEIs in Canada, Hong Kong and the UK and shows how practitioners of international student recruitment are influenced by their institutional strategic plans, and the extent of this influence on practice is mediated by institutional culture and the practitioner’s position within the institutional hierarchy. The study results indicate that considering strategy practitioners’ perceptions and interpretations of strategic plans provides HEIs with additional resources to improve strategic planning processes by creating and designing plans that address practice implementation within institutions.

Juusola, Henna; Raiha, Pekka (2020):

Quality conventions in the exported Finnish master’s degree programme in teacher education in Indonesia.

In: *Higher Education* 79 (4), S. 675–690. DOI: 10.1007/s10734-019-00430-3.

*Abstract:*

In recent higher education research, quality in education export action has been explored from the perspective of traditional education export countries such as the UK and USA. However, less attention is given to novice education export providers that rely on different educational traditions. In this article, we explore quality of education as it is done in one exported Finnish master’s degree programme in teacher education in Indonesia. Our theoretical premise is based on the convention theory that relies on pragmatic sociology. The empirical data consist of 16 semi-structured students’ and staff members’ interviews gathered between the years 2016 and 2017 in Finland and in Indonesia. The results of this study stress the plurality of the quality factors that indicate the expectations by the students and the staff members, but also the priorities of the providers as to what is essential in exported degree-based education. From the perspective of convention theory, these considerations emphasize that the successful implementation of the exported master’s degree programme in teacher education is based on the professional-academic convention (as research-based teacher education) that together with the civic-domestic convention (as societal impact, local traditions and Finnish approach to pedagogy) influenced the content of the educational programme through personal interaction.

Kahu, Ella R.; Picton, Catherine; Nelson, Karen (2020):

Pathways to engagement. A longitudinal study of the first-year student experience in the educational interface.

In: *Higher Education* 79 (4), S. 657–673. DOI: 10.1007/s10734-019-00429-w.

*Abstract:*

Student engagement is critical to success in the first year of university, yet evidence about how and why various factors influence engagement remains relatively rare. This study addresses this gap combining an existing framework of student engagement (Kahu and Nelson, *Higher Education Research and Development*, 37(1), 58-71, 2018) with student narratives to provide a detailed understanding of students’ engagement throughout their first year. Weekly semi-structured interviews with 19 first-year students at an Australian university illustrate how student and university factors interact to influence engagement, as conceptualised in the framework. The findings provide empirical support for the framework of student engagement, offering a more nuanced understanding of the student experience within the framework’s

educational interface. The importance of self-efficacy, belonging, emotions and wellbeing as interwoven pathways to student engagement is demonstrated and the contextual and dynamic nature of engagement highlighted. Further work is necessary to understand how this knowledge can best facilitate student engagement and perhaps reduce cycles of disengagement.

Kezar, Adrianna J.; Holcombe, Elizabeth M. (2020):

**Barriers to organizational learning in a multi-institutional initiative.**

In: *Higher Education* 79 (6), S. 1119–1138. DOI: 10.1007/s10734-019-00459-4.

*Abstract:*

As colleges and universities strive to change and improve, organizational learning has emerged as an important tool to facilitate change. At the same time, foundations and funders are increasingly promoting scaled change through projects that bring multiple institutions together to learn from one another. However, to date, there is little research on organizational learning in multi-institutional change initiatives or the unique challenges of promoting learning in cross-institutional settings. This paper focuses on one such effort, the AAU STEM Initiative, and outlines barriers to organizational learning that can result when national organizations attempt to facilitate learning among sets of college campuses.

Klassen, Mike; Sa, Creso (2020):

**Do global norms matter? The new logics of engineering accreditation in Canadian universities.**

In: *Higher Education* 79 (1), S. 159–174. DOI: 10.1007/s10734-019-00403-6.

*Abstract:*

New institutionalism predicts a global convergence in how higher education is organized. This convergence might be expected to intensify in professional education given accreditation requirements of professional bodies. Engineering presents an opportunity to study how international mobility agreements facilitate the development and normative diffusion of global norms in accreditation. This paper investigates how changing logics of accreditation influence the academic organization of engineering schools in Canada. Using three case studies of Canadian universities, we show how regulative and normative institutional pressures influence decisions by engineering schools to take visible action to demonstrate their conformity to global norms, while still pursuing local missions. Our findings contribute to understanding the complex mediation processes between professions and universities, and they represent a critique to dominant rationalist perspectives on quality assurance mechanisms in higher education.

Lin, Le (2020):

**The visible hand behind study-abroad waves. Cram schools, organizational framing and the international mobility of Chinese students.**

In: *Higher Education* 79 (2), S. 259–274. DOI: 10.1007/s10734-019-00408-1.

*Abstract:*

This paper adds an organizational dimension to the body of literature on international student mobility. Existing studies examine push/pull factors and student motivations, neglecting that students' motivations and demands are not necessarily spontaneous, but can be shaped by external forces. Drawing on interview, archival and observation data collected on four leading cram schools that prepare students for the TOEFL/GRE, IELTS and SAT in China, I argue that cram schools not only coach students on test preparation and "how to study abroad," but they also adopt organizational framing to instill in students "why to study abroad." Leading cram schools have played an integral role in promoting a certain organizational framing as the dominant approach of a niche market in a given era. During the 1990s, when the TOEFL/GRE niche market was rapidly expanding, the market leader in this niche promoted self-help and nationalism as dominant discourses. Self-help discourse frames overseas study and test preparation not as means, but as the ends of students' lives: going beyond one's limit and making one's life complete. Nationalist discourse depicts overseas study as a detour to build a stronger China after learning from the West. After 2000, however, new organizational framing picked up momentum in the new niche markets of IELTS and SAT. Targeting urban middle-class consumers, market leaders in these new niches increasingly

framed studying abroad as a springboard for immigration, a channel for becoming global elites and an opportunity for status improvement for the entire family. My article bridges literature on transnational higher education with studies on supplementary education.

Liu, Xu (2020):

**Institutional governance in the development of private universities in China.**

In: *Higher Education* 79 (2), S. 275–290. DOI: 10.1007/s10734-019-00409-0.

*Abstract:*

In this qualitative study, the form and features of institutional governance in private universities in China are investigated. Using a comparative case study approach, it focuses on two private universities, each with differing institutional histories and forms of governance. It draws on thematic analysis of extensive documentation relating to the governance of private higher education and data from in-depth interviews with 26 senior managers on 38 separate occasions. Through the lenses of principal-agent and stewardship theories, the roles of the Council, as the governing body, and the University Committee, as executive team, in the institutional governance of private universities are explored. The principal features of the two governance forms relating to autonomy and control of shareholders and managers are identified. The paper fills a gap in the study of the institutional governance of Chinese private universities in English literature. As such, it provides insight into practice for policymakers, senior managers, and academics in the field of governance of private universities.

Marques, Marcelo; Powell, Justin J. W. (2020):

**Ratings, rankings, research evaluation. How do Schools of Education behave strategically within stratified UK higher education?**

In: *Higher Education* 79 (5), S. 829–846. DOI: 10.1007/s10734-019-00440-1.

*Abstract:*

While higher education research has paid considerable attention to the impact of both ratings and rankings on universities, less attention has been devoted to how university subunits, such as Schools of Education, are affected by such performance measurements. Anchored in a neo-institutional approach, we analyze the formation of a competitive institutional environment in UK higher education in which ratings and rankings assume a central position in promoting competition among Schools of Education (SoE). We apply the concepts of “institutional environment” and “organizational strategic actors” to the SoE to demonstrate how such university subunits articulate their qualities and respond to the institutional environment in which they are embedded—by using ratings and rankings (R&R) to compete for material and symbolical resources as well as inter-organizational and intra-organizational legitimacy. Through findings from 22 in-depth expert interviews with members of the multidisciplinary field of education and a content analysis of websites (n = 75) of SoE that participated in REF 2014, we examine the stratified environment in which SoE are embedded (1). We uncover how R&R are applied by SoE within this competitive, marketized higher education system (2). Finally, we indicate the strategic behaviors that have been triggered by the rise of R&R in a country with a highly formalized and standardized research evaluation system (3). The results show both homogenization and differentiation among SoE in their use of organizational vocabulary and the applications of R&R while simultaneously revealing strategic behavior, ranging from changes in internal practices to changes in organizational structures.

Mathies, Charles; Kivisto, Jussi; Birnbaum, Matthew (2020):

**Following the money? Performance-based funding and the changing publication patterns of Finnish academics.**

In: *Higher Education* 79 (1), S. 21–37. DOI: 10.1007/s10734-019-00394-4.

*Abstract:*

Research on how performance-based funding influences the behaviour and performance of academics is limited in Europe. In this study, we investigate the changing publication patterns among Finnish academics associated with the introduction of awarding funding for publications within specific journals in the national performance-based funding model. We find

evidence, particularly in the social sciences, and to a lesser extent humanities, that Finnish academics increasingly target international (English-language) publication outlets and lower-tiered journals. We conclude discussing the possible long-term implications of the current funding formula for both Finnish academia and society.

Mills, David; James, David (2020):

### Reconceptualising organisational collaborations in social science doctoral education.

In: *Higher Education* 79 (5), S. 791–809. DOI: 10.1007/s10734-019-00438-9.

#### Abstract:

Empirical social science research increasingly involves working collaboratively with organisations beyond the university. This paper contributes to the growing international literature on doctoral collaboration by exploring how UK doctoral students in the social sciences negotiate organisational collaborations. We draw on narrative interviews and administrative data to create a series of case-study vignettes. We juxtapose these with a theorisation of disciplinary knowledge practices to show how such collaborations are at once demanding and unpredictable, but also generative of new understanding and insights. We suggest that Burawoy's (American Sociological Review, 70(1), 4-28, 2005) model of the 'antagonistic interdependence' of public, critical, professional and policy sociologies is helpful as a heuristic for conceptualising doctoral student experiences of a range of different (and often contradictory) forms of social scientific knowledge. Our analysis demonstrates that both instrumental and critical forms of social knowledge can emerge from organisational partnerships and placements. We call for further attention to the 'generative paradoxes' (Bartunek and Rynes Journal of Management, 40(5), 1181-1201, 2014) and 'reflective entanglements' (Jagoda 2016) that result from doctoral collaborations, and for doctoral pedagogies that help students use these experiences to develop criticality and see it as a key skill in social research.

Minh Thi Hai Vo; Laking, Rob (2020):

### An institutional study of autonomisation of public universities in Vietnam.

In: *Higher Education* 79 (6), S. 1079–1097. DOI: 10.1007/s10734-019-00457-6.

#### Abstract:

Autonomisation, allowing public organisations greater freedom from central control, has been extensively debated in the public policy literature as a means of increasing their efficiency and effectiveness. The government of Vietnam has adopted autonomisation as a key policy in reforming public service delivery. This paper investigates the autonomisation of Vietnamese public universities through an institutional study of autonomy policies and empirical analysis of autonomy practices amongst selected public universities in Vietnam. It pays particular attention to the evolution of the autonomy reforms and their implications for higher education governance in Vietnam. We argue that the autonomy of Vietnamese public universities is apparently growing, but does not reflect a broad transfer of power from the central state to public universities. Instead, autonomisation has a more limited objective of reducing public universities' claims on the central budget by presenting them with both the opportunity and the incentive to generate alternative sources of revenue to fund their operating budgets in the face of diminishing state subsidies. Many significant central controls remain over operations, particularly human resources and curricula. The result has been a significant shift of the costs of higher education onto students, which may be a factor in declining new enrolments, and in many cases the misuse of university revenues for private purposes, but little evidence of improvement in the quality of the education provided. Although it is a study of a specific instance of autonomisation in Vietnam, the paper has policy implications for developing and transitional countries that seek to improve the quality of their higher education through reforms to its governance.

Nokkala, Terhi; Diogo, Sara (2020):

### Institutional perspectives in transition. Research groups' profiles and embeddedness in organisational and national context.

In: *Higher Education* 79 (3), S. 515–532. DOI: 10.1007/s10734-019-00421-4.

*Abstract:*

Research into differentiation and profiling of knowledge producing institutions through the lenses of institutional logics and field embeddedness have proliferated in recent years. By discussing this process in the context of research groups, as those basic units in which knowledge production epistemically and practically takes place, this article offers a contribution to the theoretical discussion on organisational differentiation. Based on a small-N comparative case study of research groups operating in different national and organisational contexts on a single, highly competitive and interdisciplinary applied sciences field, nanosciences, the article proposes research group profiles as heuristic devices to explore both the embeddedness and strategic agency of research groups.

Orupabo, Julia; Drange, Ida; Abrahamsen, Bente (2020):

**Multiple frames of success. How second-generation immigrants experience educational support and belonging in higher education.**

In: *Higher Education* 79 (5), S. 921–937. DOI: 10.1007/s10734-019-00447-8.

*Abstract:*

This article explores the impact of cultural resources on success and aspirations among second-generation immigrants in higher education in Norway. We investigate whether and how cultural resources are converted into advantages in higher education. The data consist of cross-sectional survey data and in-depth interviews with Norwegian students of immigrant origin. The quantitative analysis challenges the assumption that minority students receive extra support and encouragement from their social environment to guide them through higher education. However, regarding identity, cultural resources may provide a buffer from the exclusion and risks scholars have described as common among non-immigrant working-class students in higher education. We specify how culture works through two different frames of interpreting educational achievement: (1) a dual frame of reference, i.e. comparing their achievements with the poorer conditions in their parents' home countries fosters optimism and (2) a single frame of reference, i.e. comparing their achievements with their peers with ethnic majority background in Norway fosters pessimism. Yet, both frames generate high educational commitment. Whilst the first enables the students to view their place in higher education as almost given, the second enables the students to work harder in order to prove themselves and combat under-expectations.

Parkinson, Tom; McDonald, Kevin; Quinlan, Kathleen M. (2020):

**Reconceptualising academic development as community development. Lessons from working with Syrian academics in exile.**

In: *Higher Education* 79 (2), S. 183–201. DOI: 10.1007/s10734-019-00404-5.

*Abstract:*

This paper focuses on academic development for Syrian academics in exile. Academic development first emerged in resource-rich, global North environments including the UK, the USA, Australia, and Scandinavia nearly 50 years ago as reported by Gosling (*International Journal for Academic Development*, 14(1):5-18, 2009), and the majority of research studies in this field focus on activities in global North, resource-rich, institutional settings. Yet academics in resource-poor, [post-] conflict and post-colonial contexts face different challenges and circumstances, and have different academic development needs. This paper extends the conceptual and contextual scope of this field by investigating the experiences and academic development needs of Syrian academics in exile, and interrogating the concept of academic development within that context. It establishes the background context of Syrian academia in exile, before summarising the nature and aims of the Council for At Risk Academics (Cara) Syria Programme. It then outlines the study's methodology, before presenting the findings of a thematic analysis of a multi-level data set. It then interrogates the concept and normative terrain of academic development in light of these findings, and proposes a model for academic community development to support academic communities in exile, and marginalised academic communities more widely.



Raaper, Rille (2020):

Constructing political subjectivity. The perspectives of sabbatical officers from English students' unions.

In: *Higher Education* 79 (1), S. 141–157. DOI: 10.1007/s10734-019-00400-9.

*Abstract:*

Informed by policy sociology and a Foucauldian theorisation, this article explores how a selection of sabbatical officers from English students' unions formed their political subjectivity during the policy consultation processes leading to the Higher Education and Research Act 2017. Discourse analysis demonstrated a strong influence of the unions' professional staff members and the National Union of Students on sabbatical officers' work. In particular, they guided the officers in writing a response to the Government consultation document and lobbying politicians. These actions indicated that the sabbatical officers' political subjectivity was highly dependent on professional actors and discourses. The shift towards professionalisation, however, received diverse responses from participants. Some perceived it as leading to necessary policy amendments; others were concerned about wider depoliticisation of their role and student movement. The article suggests that the sabbatical officers interviewed operated within a complex network of competing interests, raising questions about (1) whose political agency they enacted and (2) their future opportunities to successfully unite and challenge higher education policy in neoliberal times.

Rakhshandehroo, Mahboubeh; Ivanova, Polina (2020):

International student satisfaction at English-medium graduate programs in Japan.

In: *Higher Education* 79 (1), S. 39–54. DOI: 10.1007/s10734-019-00395-3.

*Abstract:*

The adoption of English-medium instruction degree and non-degree programs in non-Anglophone universities has grown dramatically over the past 15 years. Japan is not an exception. In the Japanese context, a growing number of research works have addressed the implementation of English-medium degree programs at the undergraduate level; however, little has been done to address this implementation at the graduate level, especially from a bottom-up perspective. This study addresses this gap in the research through a mixed-method study of two Japanese leading universities. Results revealed a fairly good on-campus satisfaction of English-speaking graduate international students. However, it showed that the current university support system has been mainly relying on the informal support of supervisors, international student support office staff and/or student tutors, while there has been a lack of formal university support, especially regarding the monolingual and monocultural (Japanese) administrative infrastructure. Through a double hermeneutic interpretation of the study data, possible rooms for on-campus support improvements are discussed. Results show that, with the ongoing increase in the number of English-speaking graduate international students in Japanese universities, more systematization and formal support would be needed.

Schaeper, Hildegard (2020):

The first year in higher education. The role of individual factors and the learning environment for academic integration.

In: *Higher Education* 79 (1), S. 95–110. DOI: 10.1007/s10734-019-00398-0.

*Abstract:*

The transition to higher education and the initial phase of studying play a crucial role in future educational decisions and academic development. To successfully manage this transition, a certain degree of integration into the new environment is required. For this reason, and drawing on the conceptual framework of Tinto's model of student departure, the study examines academic integration as an important first-year experience. Going beyond Tinto's approach and most of the previous research, both individual and contextual factors were analysed by estimating multilevel structural equation models. Data were taken from a panel study of new entrants to higher education institutions in Germany (N = 10,697), which is part of the National Educational Panel Study (NEPS). The results corroborate previous findings and confirm the importance of psychological attributes like self-esteem and conscientiousness. They also provide evidence that a cognitively activating learning environment enhances academic integration considerably. However, direct instruction was found to negatively affect academic integration. The study concludes with a discussion of limitations and implications for practice and future research.

Schoeps, Konstanze; La Barrera, Usue de; Montoya-Castilla, Inmaculada (2020):

### Impact of emotional development intervention program on subjective well-being of university students.

In: *Higher Education* 79 (4), S. 711–729. DOI: 10.1007/s10734-019-00433-0.

#### Abstract:

The present study aims to determine the effects of an intervention program based on Mayer and Salovey's (1997) model of emotional intelligence. A total of 250 university students participated in this study (mean = 21.89; standard deviation = 2.60; 75.20% women), who were randomized to experimental group (number of subjects = 63) and control group (number of subjects = 187). The emotional education program comprised seven 2-h sessions during 2 months. Participants completed the trait meta-mood scale, basic empathy scale, satisfaction with life scale, scale of positive and negative experience, mood questionnaire, and depression anxiety and stress scale. Results showed that the intervention program significantly increased emotional intelligence, empathy, and positive mood, as well as subjective well-being at post-intervention. These changes disappeared at follow-up. No significant moderators were found, neither demographic variables nor initial levels of emotional symptoms. Implementing intervention programs at universities for developing student's emotional competence might be beneficial for their subjective well-being and mental health.

Seidenschur, Tim; Veiga, Amelia; Jungblut, Jens; Magalhaes, Antonio (2020):

### Hopes, beliefs, and concerns. Narratives in German and Portuguese universities regarding Brexit.

In: *Higher Education* 79 (5), S. 867–884. DOI: 10.1007/s10734-019-00443-y.

#### Abstract:

This article contributes to the understanding of how different actors in the academic field perceive the challenges that Brexit poses for European higher education. Based on a narrative analysis of 28 interviews, this paper highlights how actors' narratives convene discursive elements stemming from competing discourses on cooperation and competition. In doing so, the exploratory study focuses on two countries, Portugal and Germany, which correspond to distinct cases regarding their performance in the European research and higher education landscape. The analysis highlights that there are national differences between the perceptions of Brexit and allows identifying commonalities in the narratives in both countries. In addition, we identify the presence of a pragmatic managerial attitude in response to Brexit. The three overarching narratives are the narrative of concerns, the narrative of hopes, and the narrative of beliefs. These narratives reflect the struggle of the cooperation and the competition discourses in ascribing meaning to Brexit. The competition discourse has assumed a dominant role in the perceptions of Brexit and cooperation is mainly fueled through the academics and their professional ethos.

Siekkinen, Taru; Pekkola, Elias; Carvalho, Teresa (2020):

### Change and continuity in the academic profession. Finnish universities as living labs.

In: *Higher Education* 79 (3), S. 533–551. DOI: 10.1007/s10734-019-00422-3.

#### Abstract:

The academic profession is challenged by the changing environment. Global trends, such as managerialism and new public management, have been influencing all public organizations, including universities. The academic profession is dynamic by its nature; it reflects any changes in its environment. However, the academic profession is also characterized by continuity. In this study, we describe the current changes and continuities of the academic profession in Finland, as perceived by top and middle managers employed in Finnish Universities. We found out that logics and values by organizational professionalism are emphasized; however, occupational professionalism is also deeply rooted in the practices of Finnish universities. Additionally, we found out that changes are often associated with managerial values, such as control and evaluation, and in contrast, the continuities of academic work are commonly related to professorial authority and academic identity. These two aspects of the profession and organization are not opposite, they occur simultaneously; however, there are tensions between them. In this article, we would like to emphasize that change of the academic profession is a hybrid, there exists both, changes and continuities in the logics and values related to the profession and the organization.

Song, Xianlin (2020):

**‘Chinese Students Syndrome’ in Australia. Colonial modernity and the possibilities of alternative framing.**

In: *Higher Education* 79 (4), S. 605–618. DOI: 10.1007/s10734-019-00426-z.

**Abstract:**

There are around 400,000 international students studying on Australian campuses in 2018, and the education of international students is Australia’s third largest export, behind that of iron ore and coal, thereby playing a significant role in the country’s economy and particularly the financial sustainability of Australian universities. Chinese international students, account for one-third in this cohort, are paradoxically both coveted as ‘cash cows’ and labelled as a ‘security threat’ to Australian society. The paper examines this particular ‘Chinese Student Syndrome’ through the lens of ‘colonial modernity’ and argues that along with the problems of Chinese firms in Australia, Chinese international students on Australian campuses, in many ways, take on the persona of China itself in Australia, and the implications associated with its global rise. At the core of this syndrome lies a deep-seated ontological framing of a historical teleology that centres the Anglo-European pathway to modernity as universal that grounds the epistemic certainty of higher education institutions in Australia and regards Chinese students as the outsider to this teleology.

St George, Elizabeth (2020):

**Higher education quality and autonomy-a case study of Lao PDR.**

In: *Higher Education* 79 (5), S. 753–771. DOI: 10.1007/s10734-019-00435-y.

**Abstract:**

In late 2015, the Lao government finalized its five-year National Socio-economic Development Plan 2016-2020 (NSED) to assist Lao PDR in meeting its goal of graduating from the ranks of Least Developed Countries status by 2020. The NSED is supported by a five-year Education Sector Development Plan (2016-2020) and subsequent higher education regulations that prioritise improvements to the quality of higher education in order to meet this goal, in particular by granting increased autonomy to higher education institutions. This paper argues that the association between autonomy and quality being implemented in Lao PDR draws heavily on a neoliberal, dichotomous higher education framework. It argues that efforts to improve quality in higher education should be more nuanced, taking into consideration the internal dynamics of the unitary state structure, the possibilities arising from regional engagement, and the lessons learned by neighbours on a similar pathway.

Staniland, Nimbus Awhina; Harris, Candice; Pringle, Judith K. (2020):

**‘Fit’ for whom? Career strategies of Indigenous (Maori) academics.**

In: *Higher Education* 79 (4), S. 589–604. DOI: 10.1007/s10734-019-00425-0.

**Abstract:**

Despite increasing interest internationally in remedying the underrepresentation of Indigenous peoples within education, this paper highlights how the concept of ‘fit’ undermines efforts to ‘indigenise the academy’. Drawing from a national study with Indigenous (Maori) academics, we utilise Indigenous methodologies to explore the extent of career fit for Maori business academics, defined as the level of compatibility between career experiences and individual needs and interests. Our findings go beyond the examination of fit, to highlight how two career strategies, namely, ‘strategic academic career navigation’ and ‘carving a meaningful career’, are adopted in response to (mis)fit in the academy in attempts to construct meaningful careers. We conclude that international efforts to enhance Indigenous academic representation need to account for the ways in which Indigenous values and aspirations shape career decisions and enactment. Findings from this research have implications for recruitment, retention and development strategies for Indigenous peoples, who remain a priority group in higher education as staff and students within multiple international contexts.

Suchodoletz, Antje von; Rahn, Johanna; Nadyukova, Irina; Barza, Lydia; Achtziger, Anja (2020):

**Can mindsets influence college students' motivation to learn? Findings from the United States and the United Arab Emirates.**

In: *Higher Education* 79 (4), S. 731–748. DOI: 10.1007/s10734-019-00434-z.

**Abstract:**

Changing mindsets may influence college students' motivation to learn, which in turn affects how they engage in learning activities. Based on mindset theory (Gollwitzer 1990; Gollwitzer 2012), this study explored the extent to which the concepts of the deliberative and implemental mindset are value-laden, and hence, might have different effects for individuals from different cultural backgrounds. More specifically, we investigated if these types of mindsets have a positive or negative effect on college students' motivation to learn in the context of higher education in two different countries, the United States (US) and the United Arab Emirates (UAE). Participants were 327 college students: 205 from the UAE and 122 from the US. Students were randomly assigned to one of four conditions (neutral, deliberative or implemental mindset, or control). Questionnaires assessed their motivation to learn, defined as attitudes, values, and goals on academic tasks, and self-regulatory strategies to complete them. Results suggested that differences in the consequences of being in a deliberative mindset for college students' motivation to learn for students from the US and the UAE; only students in the US sample were disadvantaged, whereas no such effect was found for students from the UAE. Being in an implemental mindset did not benefit students' motivation to learn. Cultural factors that may explain the results are discussed. The findings reinforce the need to examine motivation and possible interventions aimed at strengthening motivation in the context of higher education across individuals from different cultural background.

Tagliaventi, Maria Rita; Carli, Giacomo; Cutolo, Donato (2020):

**Excellent researcher or good public servant? The interplay between research and academic citizenship.**

In: *Higher Education* 79 (6), S. 1057–1078. DOI: 10.1007/s10734-019-00456-7.

**Abstract:**

Academics have always been endowed with the privilege of autonomy, but the diffusion of evaluation systems based on publication outcomes potentially jeopardizes the benefits deriving from behaviors that address other pillars of higher education. Besides research and teaching, academic citizenship, i.e., the service behaviors carried out within and outside organizational boundaries, are in fact cornerstones of university functioning. We investigate the relationship between academic citizenship and research after the introduction of an evaluation system that moves research performance to center stage on a dataset collecting publication records and service activities of 353 Italian scholars in the accounting discipline in the 2004–2013 period. A cluster analysis reveals different academics' orientations towards research and academic citizenship. We contribute to the debate on academic choices by showing that a large number of university members tend to focus on a single type of academic citizenship or to adopt a research orientation, while a significant part remains stuck in the middle without achieving satisfying performance in any domains according to international standards, and discuss implications for the design of behavioral incentives.

Vulperhorst, Jonne Pieter; van der Rijst, Roeland Matthijs; Akkerman, Sanne Floor (2020):

**Dynamics in higher education choice. Weighing one's multiple interests in light of available programmes.**

In: *Higher Education* 79 (6), S. 1001–1021. DOI: 10.1007/s10734-019-00452-x.

**Abstract:**

Recent studies have shown that students' interests are decisive in making a substantiated higher education choice, yet do not indicate how students decide which interests they aim to pursue. This study aimed to find the considerations students have when weighing interests and higher education programmes. Thematic analysis was applied to uncover considerations based on semi-structured interviews with 20 Dutch high-school seniors. Students weighed their interests from an interest-to-programme perspective (contrasting interests and deciding which is most important for their future) and from a programme-to-interest perspective (evaluating how possible programmes reconcile with one's interests). By applying both perspectives simultaneously, students dynamically considered which programmes and interests they wished to pursue.

These findings imply that higher education choice theory and studies should acknowledge that the programmes and interests students consider are dependent on the feed forward of the considered interests on programmes and the feed back of considered programmes on interests.

Wei, Yilin; Johnstone, Christopher (2020):

Examining the race for world-class universities in China. A culture script analysis.

In: *Higher Education* 79 (3), S. 553–567. DOI: 10.1007/s10734-019-00423-2.

*Abstract:*

In this article, we examine how the concept of world-class universities has emerged in Chinese higher education at both the sectoral and institutional level. We examine policy decisions related to creating world-class universities on China's mainland and institutional responses to these policies. We then read these policies through "cultural scripts"—an analytic approach focused on visible and hidden cultural properties (Tan 2012, 2015) that may inform policy direction. First, we examine the intersection of Confucian values and Communist history in China as they relate to higher education. Second, we critically analyze the role of neoliberalism in higher education development worldwide and specifically in China. Third, we investigate utilitarianism as a feature of higher education in China. Finally, we draw critical conclusions about the emergence of world-class universities in China and their overall impact on the higher education sector there.

Wildschut, Angelique; Rogan, Michael; Mncwango, Bongiwe (2020):

Transformation, stratification and higher education. Exploring the absorption into employment of public financial aid beneficiaries across the South African higher education system.

In: *Higher Education* 79 (6), S. 961–979. DOI: 10.1007/s10734-019-00450-z.

*Abstract:*

Improving access to higher education is an important strategy for achieving equity in the labour market. Against the backdrop of the 'massification' of higher education in a number of countries, most notably in the UK during the 1990s, a growing literature on graduate un/employment has aimed to investigate whether the graduate labour market has absorbed the increasing number of university completers. In post-apartheid South Africa, this question assumes an added significance corresponding with the need to redress sharp inequalities in access to higher education inherited from the colonial and apartheid eras. Measuring graduate employment outcomes, however, is notoriously difficult. Graduate employment studies are often ad hoc and focus on graduates from only a handful of universities or degree programmes. Exploring a novel dataset, this paper presents the first analysis of the labour market absorption rates of publicly funded (through the National Student Financial Aid Scheme (NSFAS)) graduates from low-income households across all South African universities between 2005 and 2015. While our findings illustrate the expected differences in the probability of employment by race and gender, we also identify a strong and significant association between the type of university from which NSFAS students graduate and the probability of employment and show that this association holds irrespective of race, gender and the field of study in which a degree is obtained. We conclude with a reflection on what a hierarchical higher education system means for the role of higher education in transformation and creating an equitable society.

Yang, Po; Wang, Rong (2020):

Central-local relations and higher education stratification in China.

In: *Higher Education* 79 (1), S. 111–139. DOI: 10.1007/s10734-019-00399-z.

*Abstract:*

Regional higher education growth in non-federal states has not attracted much academic attention. This paper is one of the first attempts to explore China's latest higher education expansion and its systematic and regional impact from the perspective of multi-level governance. This article argues that the state had explicitly utilized the Commanding Heights Strategy to diffuse the higher education authority to sub-national level and promote regional growth. The Central authorities allowed the Ministry of Education establishing a vertical elite coalition to command the heights of tertiary institutional hierarchy and key resources for tertiary development. In addition, the state used both financial incentives and

sectoral incentives to mobilize resources for regional expansion. The Commanding Heights Strategy shapes China's response to the higher education trilemma of costs, access, and quality. Under this strategy, the unprecedented tertiary expansion has expanded college access, but at the expense of affordability, quality, and a large and increasing regional variation.

Yarmoshuk, Aaron N.; Cole, Donald C.; Mwangi, Mughwira; Guantai, Anastasia Nkatha; Zarowsky, Christina (2020):

### Reciprocity in international interuniversity global health partnerships.

In: *Higher Education* 79 (3), S. 395–414. DOI: 10.1007/s10734-019-00416-1.

#### Abstract:

Interuniversity global health partnerships are often between parties unequal in organizational capacity and performance using conventional academic output measures. Mutual benefit and reciprocity are called for but literature examining these concepts is limited. The objectives of this study are to analyse how reciprocity is practiced in international interuniversity global health partnerships and to identify relevant structures of reciprocity. Four East African universities and 125 of their international partnerships were included. A total of 192 representatives participated in key informant interviews and focus group discussions. Interviews were transcribed and analysed thematically, drawing on reciprocity theories from international relations and sociology. A range of reciprocal exchanges, including specific, unilateral and diffuse (bilateral and multilateral), were observed. Many partnerships violated the principle of equivalence, as exchanges were often not equal based on tangible benefits realized. Only when intangible benefits, like values, were considered was equivalence realized. This changed the way the principle of contingency—an action done for benefit received—was observed within the partnerships. The values of individuals, the structures of organizations and the guiding principles of the partnerships were observed to guide more than financial gain. Asymmetry of partners, dissimilar perspectives and priorities, and terms of funding all pose challenges to reciprocity. In an era when strengthening institutions is considered crucial to achieving development goals, more rigorous examination and assessment of reciprocity in partnerships is warranted.

Zandonade Falqueto, Junia Maria; Hoffmann, Valmir Emil; Gomes, Ricardo Correa; Onoyama Mori, Silvia Satiko (2020):

### Strategic planning in higher education institutions. What are the stakeholders' roles in the process?

In: *Higher Education* 79 (6), S. 1039–1056. DOI: 10.1007/s10734-019-00455-8.

#### Abstract:

This article classifies and assigns degrees of influence to the stakeholders involved in the implementation of strategic planning at a Brazilian higher education institution. In order to test the stakeholder influence theory, we carried out a case study of a Brazilian university based on qualitative methods. The models of Frooman (*Academy of Management Review*, 24(2), 191-205, 1999) and Mitchell et al. (*Academy of Management Review*, 22(4), 853-886, 1997) served as the theoretical basis for assessing the stakeholders' identification and management. Findings indicate that higher education institutions focus on the internal and external stakeholders that have the power to control them. In practice, this study provides insight into the stakeholder influences that have an effect on the implementation of strategic planning in a university. Based on the findings, university managers will be able to think more strategically about the institution's objectives, taking into account the degree of influence that stakeholders have on the institution's objectives.

## Reviews

Clegg, Sue (2020):

Bottrell, D. Manathunga, C. (Eds): *Resisting neoliberalism in higher education volume I. seeing through the cracks* (Palgrave Macmillan 2019). Manathunga C. Bottrell, D. (Eds): *Resisting neoliberalism in higher education volume II. prising open the cracks* (Palgrave Macmillan 2019).

[Review]. In: *Higher Education* 79 (1), S. 179–181. DOI: 10.1007/s10734-019-00384-6.

Detmer, Andrea (2020):

Otto Hüther and Georg Krücken. Higher education in Germany—recent developments in an international perspective, Springer, Cham, 2018, pp. 263.

[Review]. In: *Higher Education* 79 (1), S. 175–177. DOI: 10.1007/s10734-019-00401-8.

Guo, Hua-Ling; Huang, Ya-Ting (2020):

Stephen James Marshall: Shaping the University of the Future. Using Technology to Catalyse Change in University Learning and Teaching.

[Review]. In: *Higher Education* 79 (4), S. 749–751. DOI: 10.1007/s10734-019-00431-2.

Li, Fengliang (2020):

Ellen Hazelkorn, Hamish Coates, and Alexander C. McCormick (ed): Research handbook on quality, performance and accountability in higher education, Edward Elgar, 27 July 2018, c 616 (ISBN 9781785369742).

[Review]. In: *Higher Education* 79 (5), S. 939–940. DOI: 10.1007/s10734-019-00442-z.

Pan Meng-Jun; Huang Ya-Ting (2020):

Jean Murray, Anja Swennen, Clare Kosnik. International research, policy, and practice in teacher education.

[Review]. In: *Higher Education* 79 (6), S. 1139–1141. DOI: 10.1007/s10734-019-00454-9.

## Specials

Gu, Michelle Mingyue; Lee, John Chi-Kin (2020):

Correction to: “They lost internationalization in pursuit of internationalization”. Students’ language practices and identity construction in a cross-disciplinary EMI program in a university in China, *Higher Education* (2019) 78:389–405.

[Correction]. In: *Higher Education* 79 (5), S. 941. DOI: 10.1007/s10734-019-00444-x.

**Abstract:**

The original version of this article unfortunately contained a mistake.

The author would like to add the below text as acknowledgement: “This study is supported by GRF project, University Grant Council, Hong Kong, with the reference number of 14620117.”

Marques, Marcelo; Powell, Justin J. W. (2020):

Correction to: Ratings, rankings, research evaluation. How do schools of education behave strategically within stratified UK higher education? (vol 81, pg 543, 2020).

[Correction]. In: *Higher Education* 79 (5), S. 847. DOI: 10.1007/s10734-019-00471-8.

*Abstract:*

The article “Ratings, rankings, research evaluation: how do Schools of Education behave strategically within stratified UK higher education?”, written by Marcelo Marques and Justin J. W. Powell, was originally published electronically in SpringerLink on 16 August 2019 without Open Access.

With the author(s)’ decision to opt for Open Choice the copyright of the article changed on [December 3, 2019] to © The Author(s) 2019 and the article is forthwith distributed under the terms of the Creative Commons Attribution 4.0 International License (<https://creativecommons.org/licenses/by/4.0/>), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made.

The original article has been corrected.



## Original Articles

Barnacle, Robyn; Cuthbert, Denise; Schmidt, Christine; Batty, Craig (2020):

**Vectors of knowledge exchange. The value of industry engagement to HASS PhDs.**

In: *Higher Education* 80 (5), S. 973–987. DOI: 10.1007/s10734-020-00528-z.

*Abstract:*

This article investigates the value of Humanities, Arts and Social Sciences (HASS) candidates' prior industry networks and experiences as they intersect with doctoral study, as assessed by a group of HASS PhD graduates. While the phenomenon of industry engagement in PhDs across HASS and STEM is widely recognised, the value of these relationships to the PhD experience is less understood. This is particularly the case in HASS PhDs given the opportunities afforded to this predominantly mature-aged cohort of pre-existing professional networks. In our previous work on this topic, we showed that engaging with industry throughout the HASS PhD research lifecycle is widespread, and that networks may have their genesis prior to commencement and persist into careers post-graduation. In this article, we subject these networks to finer-grained analysis. Based on 16 in-depth interviews, we investigate the value HASS PhD graduates ascribe to their industry networks pre-, during and post-graduation. Our analysis suggests industry engagement during the PhD contributes value in two key ways: by facilitating candidate learning, in the form of research design and data collection related activities, and for knowledge exchange. These insights are further enhanced by development of a novel analytical model that measures the extensiveness, or continuity, of industry engagement across the PhD lifecycle. Comparative analysis reveals a correlation between enduring industry engagement and academic careers post-graduation, suggesting additional value in the form of a highly industry integrated HASS academic labour force. Our findings suggest HASS PhDs can function as an important and hitherto under-recognised industry engagement vector, contributing added value to the research process with multiple potential beneficiaries.

Bilsland, Christine; Carter, Leanne; Wood, Leigh (2020):

**Beyond the degree. Graduate transitions from a transnational campus in Vietnam.**

In: *Higher Education* 80 (6), S. 1103–1120. DOI: 10.1007/s10734-020-00533-2.

*Abstract:*

Little research addresses graduate transition issues faced by transnational education (TNE) stakeholders. This paper's conceptual framework situates alumni as central stakeholders and potential partners in developing crucial insights into TNE graduate transitions. We interviewed alumni of an Australian university campus in Vietnam (AUV) about their TNE education experience and how students might be successfully supported to transition to local careers. Alumni were satisfied with the AUV's role in developing skills, English ability, and confidence. They noted the value of work integrated learning (WIL) internships. However, they highlighted aspects of their experience where the university could provide greater employability support and cultural relevance. Moreover, they expressed a desire for greater ongoing connection with the university as their careers progressed. The findings ground the paper's proposals for institutional transnational campus graduate transition support at three stages of the transnational student experience: enrolled student, transitioning student and graduate alumnus.

Bittmann, Felix; Zorn, Viktoria Sophie (2020):

When choice excels obligation. About the effects of mandatory and voluntary internships on labour market outcomes for university graduates.

In: *Higher Education* 80 (1), S. 75–93. DOI: 10.1007/s10734-019-00466-5.

*Abstract:*

Mandatory and voluntary internships present widespread opportunities for graduates of tertiary education to gain relevant work- and on-the-job experience during their years of study. However, it is questionable if these actually have positive effects on outcomes (income, job mismatch, and overall job satisfaction). By estimating linear and logistic regression models using data from Austria, we demonstrate that voluntary internships are associated with significantly better labour market outcomes across all models and dependent variables, while we find no complementary effects for mandatory internships. Advanced analyses underline that the functional form between all three dependent variables and length of voluntary internships is linear. Furthermore, we find no significant interaction effects between internships and other working episodes during the time of study. Both students, with and without field-related working experience, profit from extra-curricular internships. In summary, voluntary internships are associated with improved outcomes for both graduates, with and without other episodes of labour market experience, and study-related employment episodes cannot substitute the benefits of regular internships.

Cañibano, Carolina; D'Este, Pablo; Otamendi, F. Javier; Woolley, Richard (2020):

Scientific careers and the mobility of European researchers. An analysis of international mobility by career stage.

In: *Higher Education* 80 (6), S. 1175–1193. DOI: 10.1007/s10734-020-00536-z.

*Abstract:*

International scientific mobility and research careers are two concepts that are intimately related. Yet, it has been very difficult for scholarship to pinpoint exactly how international mobility impacts on research careers. This paper contributes to this question by investigating links between international mobility, research career stage progression and job changes. It does so using a large-scale survey (MORE) which targets researchers based in European universities. The results establish that the profile of international mobility varies by academic research career stage. They also show that for researchers in the established mid-career phase who are working internationally, there are career advancement benefits associated with return mobility to their home country. However, these benefits may reduce if the timing of return is too delayed. The paper concludes by discussing the implications of these results for researcher mobility policy in the context of the European Higher Education Area and the European Research Area.

Cao, Chun; Meng, Qian (2020):

Effects of online and direct contact on Chinese international students' social capital in intercultural networks. Testing moderation of direct contact and mediation of global competence.

In: *Higher Education* 80 (4), S. 625–643. DOI: 10.1007/s10734-020-00501-w.

*Abstract:*

Chinese international students often face daunting challenges of building intercultural networks and receiving support from outgroup members. To facilitate their social integration, this study proposed a research model investigating the relationships of online and direct intergroup contact to social capital in intercultural networks (social support resource networks built among culturally different students). We also examined whether the three dimensions of global competence (global knowledge, attitudes, and skills) can mediate these relationships and whether direct contact can moderate the relationships of online contact to global competence and social capital. Data were collected from 210 Chinese students in Belgium. The results revealed that direct contact was positively related to both bonding and bridging social capital, through the mediators of global skills and attitudes. Online contact was related to the predicted variables in a more complex way. The moderation analyses revealed direct contact as an important moderator that modified effects of online contact. Specifically, online contact was positively related to global skills and bonding social capital at low, rather than high, levels of direct contact. Besides, online contact was negatively related to global attitudes at low, rather than high, levels of direct contact.

Capano, Giliberto; Pritoni, Andrea (2020):

**What really happens in higher education governance? Trajectories of adopted policy instruments in higher education over time in 16 European countries.**

In: *Higher Education* 80 (5), S. 989–1010. DOI: 10.1007/s10734-020-00529-y.

*Abstract:*

Over the past three decades, governments have recurrently intervened in higher education. Over time, significant changes have occurred in inherited national governance modes. These reforms have been assessed in different ways, such as by emphasising the shift to the more supervisory role of the State, or the increasing privatisation and marketisation following the neoliberal paradigm, or the overall process of re-regulation. This paper sheds light on these different judgements by addressing the governance shift by focusing on the sequences of policy instrument mixes adopted over time in 16 European countries. By analysing 25 years of policy developments, it is shown how the content of national governance reforms consistently varied over time and that no common template has been followed.

Clément, Louise; Fernet, Claude; Morin, Alexandre J. S.; Austin, Stéphanie (2020):

**In whom college teachers trust? On the role of specific trust referents and basic psychological needs in optimal functioning at work.**

In: *Higher Education* 80 (3), S. 511–530. DOI: 10.1007/s10734-019-00496-z.

*Abstract:*

This study examines the mediating role of the satisfaction of basic psychological needs (need for relatedness, need for competence, need for autonomy), as derived from self-determination theory, between college teachers' relational trust in three main referents (the administration, colleagues, and students) and their optimal functioning (vigor, affective organizational commitment, job performance). The study was conducted among 422 teachers from French-language colleges in the province of Quebec (Canada). The results obtained using structural equations provide support for the proposed model, while identifying specific ways in which trust in the different referents is connected to the satisfaction of psychological needs, as well as to the studied indicators of functioning. Theoretical and practical implications, as well as directions for future research are discussed.

Clouder, Lynn; Karakus, Mehmet; Cinotti, Alessia; Ferreyra, María Virginia; Fierros, Genoveva Amador; Rojo, Patricia (2020):

**Neurodiversity in higher education. A narrative synthesis.**

In: *Higher Education* 80 (4), S. 757–778. DOI: 10.1007/s10734-020-00513-6.

*Abstract:*

Neurodiversity is an umbrella term, including dyspraxia, dyslexia, attention deficit hyperactivity disorder, dyscalculia, autistic spectrum and Tourette syndrome. The increasing number of students with learning difficulties associated with neurodiversity entering higher education (HE) poses a shared and growing challenge internationally for teachers and institutional leaders. This narrative synthesis draws together a corpus of international literature on how neurodiverse students experience higher education and the ways in which higher education institutions respond to the cluster of neurodiverse conditions. A systematic review was carried out to search, retrieve, appraise and synthesize the available evidence to provide an original contribution to the literature and significant insights of worth to higher education internationally. An inclusive approach to data extraction was used to ensure that all the relevant studies were included. All stages of the review process, including the initial search, screening, sample selection and analysis, are described. Three main themes and 11 subthemes were identified. Although the majority of publications focus on either dyslexia, autistic spectrum disorder, or ADHD, some common themes are evident in student experience across learning difficulties associated with neurodiversity. Although support services and technologies are available to meet students' specific needs, there is an apparent dislocation between the two. Fear of stigmatization and labelling worsens the divide between what is needed and what is available to ensure neurodiverse students' success in higher education, where good intentions are evidently not enough.

Corredor, Javier A.; González-Arango, Felipe; Maldonado-Carreño, Carolina (2020):

When unintended effects are really unintended. Depressive symptoms and other psychological effects of forgivable loan programs for college education.

In: *Higher Education* 80 (4), S. 645–662. DOI: 10.1007/s10734-020-00502-9.

*Abstract:*

This article estimates the effects on depressive symptoms, family relationships, social support, and academic self-efficacy of participating in a forgivable loan program, using an instrumental variable (IV) estimation strategy. In particular, we estimate local average treatment effects (LATE) of program participation on these variables, using program eligibility as an instrument. In this case, estimation needs to account for endogeneity, given that not all eligible students decided to participate in the program and that variables affecting the decision to participate in the program might be related to the psychological variables being evaluated. We found negative effects on all the psychological variables. Additionally, we found that program participants were significantly more likely to move and attend elite, accredited, and more expensive universities, which explains the observed psychological symptoms. Results are interpreted in terms of the pressures that non-traditional students receiving financial aid face when adapting to college.

Daenekindt, Stijn; Huisman, Jeroen (2020):

Mapping the scattered field of research on higher education. A correlated topic model of 17,000 articles, 1991-2018.

In: *Higher Education* 80 (3), S. 571–587. DOI: 10.1007/s10734-020-00500-x.

*Abstract:*

Parallel to the increasing level of maturity of the field of research on higher education, an increasing number of scholarly works aims at synthesising and presenting overviews of the field. We identify three important pitfalls these previous studies struggle with, i.e. a limited scope, a lack of a content-related analysis, and/or a lack of an inductive approach. We take these limitations into account by analysing the abstracts of 16,928 articles on higher education between 1991 and 2018. To investigate this huge collection of texts, we apply topic models, which are a collection of automatic content analysis methods that allow to map the structure of large text data. After an in-depth discussion of the topics differentiated by our model, we study how these topics have evolved over time. In addition, we analyse which topics tend to co-occur in articles. This reveals remarkable gaps in the literature which provides interesting opportunities for future research. Furthermore, our analysis corroborates the claim that the field of research on higher education consists of isolated 'islands'. Importantly, we find that these islands drift further apart because of a trend of specialisation. This is a bleak finding, suggesting the (further) disintegration of our field.

Dias Lopes, Alice (2020):

International mobility and education inequality among Brazilian undergraduate students.

In: *Higher Education* 80 (4), S. 779–796. DOI: 10.1007/s10734-020-00514-5.

*Abstract:*

This paper aims to understand the effect of international mobility in higher education on Brazilian education inequality by examining the Science Without Borders programme for undergraduate students. The SWB aimed to award 101,000 scholarships for Brazilian undergraduate students to conduct part of their studies in a foreign university between 2011 and 2015. This paper draws on research on education inequalities and international mobility to investigate the patterns of inequality among undergraduate students participating in the SWB, considering the period of higher education expansion in Brazil. Using the ENEM datasets, inequality of access and inequality within the programme were analysed. The results show that students with parents with higher levels of education and higher income were more likely to participate in the SWB programme. Moreover, students with higher parental education and family income tended to study at a prestigious university during the programme.

Dong, Xilu; Maassen, Peter; Stensaker, Bjørn; Xu, Xiuling (2020):

Governance for excellence and diversity? The impact of central and regional affiliation for the strategic positioning of Chinese top universities.

In: *Higher Education* 80 (5), S. 823–837. DOI: 10.1007/s10734-020-00516-3.

*Abstract:*

Through analysis of the strategic ambitions of China's top universities, this article studies the relationship between governance structures at the system level and strategic institutional adaptations. In China, some top universities are governed directly by the national authorities while others have regional affiliations. By analyzing the strategic plans of a sample of universities in both categories the article examines how these differences in governance modes may impact the formal ambitions and objectives of the universities and discuss the potential system implications of these different governance modes, especially related to issues of excellence and diversity. The article find that differences in governance modes do affect the strategic positioning of Chinese universities, and different ways in which governance arrangements can be used to foster both excellence and diversity in a system perspective are discussed.

Dougherty, Kevin J.; Natow, Rebecca S. (2020):

Performance-based funding for higher education. How well does neoliberal theory capture neoliberal practice?

In: *Higher Education* 80 (3), S. 457–478. DOI: 10.1007/s10734-019-00491-4.

*Abstract:*

Neoliberal theories—whether the new public management, principal-agent theory, or performance management—have provided the rationale for sweeping reforms in the governance and operation of higher education. This paper expands our understanding of neoliberal theory and practice by examining a leading neoliberal reform: performance-based funding (PBF) for higher education in the USA, Europe, Canada, Australia, and elsewhere. Our analysis of PBF examines not only its impacts but also its origins and implementation. Neoliberal theory has been used not only prospectively to design and argue for certain public policies but also retrospectively to analyse the origins and implementation of neoliberal policy. Hence, this paper examines this retrospective neoliberal analysis in order to determine how well neoliberal theory helps us understand the origins and implementation of neoliberal policy: in this case, the socio-political forces that gave rise to PBF; and the political and organizational features of the processes by which PBF was implemented.

Ferfolja, Tania; Asquith, Nicole; Hanckel, Benjamin; Brady, Brooke (2020):

In/visibility on campus? Gender and sexuality diversity in tertiary institutions.

In: *Higher Education* 80 (5), S. 933–947. DOI: 10.1007/s10734-020-00526-1.

*Abstract:*

This paper draws on the largest and most comprehensive Australian research to date that explores the campus climate for sexuality and gender diverse (SGD) people at one university. Using a mixed-method approach that incorporated an online survey open to all students and staff (n = 2395), face-to-face in-depth interviews with key stakeholders (n = 16) and an online document analysis, the study explored participants' perceptions and attitudes to sexuality and gender diversity on campus, experiences of in/exclusion, (un)safe places, visibility in public online documents, and the campus-based services available to support SGD individuals. The findings point to the ongoing exclusion experienced by SGD people across the university. We show how exclusion serves to silence individuals across multiple levels and how this, in turn, limits the visibility of, and redress for, exclusion, impacting on health and well-being. This tension, we posit, can only be addressed safely and holistically through proactive and strategic endeavours on the part of the institution; without which, exclusion will continue to prevail.

Ford, Karly S.; Cate, Leandra (2020):

The discursive construction of international students in the USA. Prestige, diversity, and economic gain.

In: *Higher Education* 80 (6), S. 1195–1211. DOI: 10.1007/s10734-020-00537-y.

*Abstract:*

Universities in the USA must navigate a complex set of organizational goals when communicating about international students. On one hand, international students signal that the university has a global reach and diverse student body; on the other hand, international students have been viewed as edging out domestic students for access to scarce resources. How do US universities frame and reframe the fraught narrative around international students? We examined the websites of over 160 large universities in the USA and collected screenshots of how international students were represented. Using an academic capitalism framing, we understand universities to be neoliberal actors focused on securing their status position and generating economic growth. In this way, our findings show how international students have come to be framed as consonant with multiple organizational missions and goals. These goals include being viewed as global/cosmopolitan, ethnically diverse and financially sound. International students are in this sense are discursively constructed through these representations, framed as markers of prestige and legitimacy, as well as a means of economic stimulus. We also find that they are rarely presented as ordinary or unremarkable participants in a campus community alongside their domestic counterparts, marked instead by these exceptional narratives that reframe them in ways that serve institutional goals.

Freeman, Sydney; Karkouti, Ibrahim M.; Ward, Kelly (2020):

Thriving in the midst of liminality. Perspectives from department chairs in the USA.

In: *Higher Education* 80 (5), S. 895–911. DOI: 10.1007/s10734-020-00521-6.

*Abstract:*

The chair position is essential for implementing progressive changes in higher education institutions. However, the position has been unattractive to many faculties due to its ambiguity and the limited training chairs receive prior to assuming the office. Chairs must balance the dual responsibilities of managing faculty and student affairs who they support and evaluate as they implement the mandates from higher administration. Similarly, they shuttle between their managerial roles and faculty roles while balancing work-life demands. Hence, the purpose of this paper was to explore the managerial approaches of chairs in the USA who were serving in departments in the field of educational leadership to learn how they balance their various responsibilities. Fifteen chairs who are members of the University Council for Educational Administration (UCEA) were interviewed for this study. The theory of liminality was used to understand how chairs serve and manage multiple dimensions of their role and beyond. Overall, the performance of chairs in the study was enhanced by four themes including (a) managing the molecule, (b) people work vs. paperwork, (c) leadership qualities enhance performance, and (d) possessing academic seniority. Based on the findings, we recommend three major support areas for chairs that include providing mentorship opportunities for chairs, advancing leadership role models for chairs, and initiating formal trainings for leadership development.

Fumasoli, Tatiana; Barbato, Giovanni; Turri, Matteo (2020):

The determinants of university strategic positioning. A reappraisal of the organisation.

In: *Higher Education* 80 (2), S. 305–334. DOI: 10.1007/s10734-019-00481-6.

*Abstract:*

This paper makes a contribution to the debate on university organisational actorhood by theorising the determinants of institutional strategic positioning. It argues that besides environmental forces and managerial rationality, the organisational dimension needs to be accounted for. Addressing the mixed empirical evidence in the relevant literature, we conceptualise the organisational dimension as a meso-level intervening variable mediating both external influences (outside-inside) and organisational action (inside-outside). We operationalise the organisational dimension along three components: organisational structure, identity and centrality, which are further elaborated in sub-components and indicators. A set of hypotheses to be tested in empirical research is provided. The paper offers new perspectives on the dynamics of change in higher education and on strategic agency of organisational actors.

Galloway, Nicola; Numajiri, Takuya; Rees, Nerys (2020):

### The 'internationalisation', or 'Englishisation', of higher education in East Asia.

In: *Higher Education* 80 (3), S. 395–414. DOI: 10.1007/s10734-019-00486-1.

#### Abstract:

In recent years, one of the most significant trends in higher education in non-anglophone countries has been the growth in English Medium Instruction (EMI). However, provision is rapidly outpacing empirical research. This study examined how macro-level education policy with regard to EMI is both implemented and conceptualised at the institutional and classroom level in Chinese and Japanese universities. Utilising questionnaires with home students (n = 579) and staff (n = 28), interviews with home students (n = 29) and staff (n = 28) and four focus groups with staff and four with home students, in addition to questionnaires (n = 123), interviews (n = 10) and three focus groups with international students, the study provides insights into how EMI policy is operationalised, including types of programmes and language use, and how it is conceptualised by different stakeholders. The results highlight contextual constraints to policy implementation, calling for the need for more research into this growing trend and curriculum evaluation to inform context-sensitive ways to implement EMI policy. It also calls for a critical examination of monolingual EMI policies and academic norms amidst growing multilingualism in the EMI classroom as well as clear goals and objectives due to varying conceptualisations of the purposes of EMI amongst staff and students.

Gao, Yuan; Liu, Jin (2020):

### International student recruitment campaign. Experiences of selected flagship universities in China.

In: *Higher Education* 80 (4), S. 663–678. DOI: 10.1007/s10734-020-00503-8.

#### Abstract:

Along with the significant improvement of Chinese universities' visibility in the global higher education field, the Chinese government has been actively branding "Study in China" in recent years to market itself as a prevalent destination for international education. International enrolment has gained increasing importance and become a key component of the internationalisation discourse in China. Borrowing the theories of field and capital, this study aims to obtain a more nuanced understanding of China's position as a leading host country for international students. Using a multiple-case study design, this study investigates the motivations for selected flagship universities in China to campaign to recruit international students, and in what way these are nested with the national priorities, as well as the key recruitment strategies and technologies they have employed. The findings help reveal the distinctiveness of the Chinese model of international student recruitment. A shift in priorities is also noted as well as controversies and tensions in respect to the employment of various recruitment strategies. The lessons of leading universities in China offer insights both for researchers and policymakers in many countries to rethink their strategies to increase their nations and universities' presence in the global landscape.

Ghasemy, Majid; Teeroovengadam, Viraiyan; Becker, Jan-Michael; Ringle, Christian M. (2020):

### This fast car can move faster. A review of PLS-SEM application in higher education research.

In: *Higher Education* 80 (6), S. 1121–1152. DOI: 10.1007/s10734-020-00534-1.

#### Abstract:

The relevance and prominence of the partial least squares structural equation modeling (PLS-SEM) method has recently increased in higher education research, especially in explanatory and predictive studies. We therefore first aim to assess previous PLS-SEM applications by providing a systematic review; second, we aim to highlight and summarize important guidelines for conducting a rigorous PLS-SEM analysis of the current state of results reporting in higher education journals. Specifically, this study focuses on empirical PLS-SEM applications in 14 major higher education journals indexed in the Thomson Reuters Web of Science and in the Elsevier-Scopus databases between 1999 and 2018. We initially identified 49 relevant papers published in 10 higher education journals. Based on these papers' generally followed guidelines, we thereafter identified various issues related to data screening, model characteristics, measurement model evaluation, structural model evaluation, and the application of state-of-the-art PLS-SEM advanced methods requiring particular attention. Furthermore, we recommend recent guidelines to improve PLS-SEM applications and practices, besides providing specific suggestions regarding utilizing the method's strength in terms of relevant higher education research

questions. Our findings remind researchers, reviewers, and journal editors to remain vigilant, should help them avoid inaccuracies in future publications, and ensure rigor.

Ibarra-Sáiz, María Soledad; Rodríguez-Gómez, Gregorio; Boud, David (2020):

**Developing student competence through peer assessment. The role of feedback, self-regulation and evaluative judgement.**

In: *Higher Education* 80 (1), S. 137–156. DOI: 10.1007/s10734-019-00469-2.

*Abstract:*

How can students' competence be developed through peer assessment? This paper focuses on how relevant variables such as participation, evaluative judgement and the quality of the assessment interact and influence peer assessment. From an analysis of 4 years of data from undergraduate classes in project management, it develops a model of causal relationships validated using the PLS-SEM method. It demonstrates relationships between these variables and considers the influence of students' competence and the mediating nature of feedback and self-regulation on the process. It points to how peer assessment practices can be improved whilst highlighting how evaluative judgement and feedback are two key elements that can be addressed to deliver the effective development of students' competence.

Jackson, Denise; Tomlinson, Michael (2020):

**Investigating the relationship between career planning, proactivity and employability perceptions among higher education students in uncertain labour market conditions.**

In: *Higher Education* 80 (3), S. 435–455. DOI: 10.1007/s10734-019-00490-5.

*Abstract:*

This paper addresses the limited empirical analysis of higher education students' perceptions of contemporary labour market demands. It explores their perspectives on the health of the graduate labour market, what factors determine these and how their perceptions relate to self-perceived employability, career proactivity, career control and efforts to develop positional advantage. Further, the study examines determinants of students' career planning, all in the context of a challenging graduate labour market and higher education systems that have become more market-driven. The paper draws on evidence from a survey among Australian and UK students (N = 433), from two institutions and across a range of disciplines. Data revealed a number of significant findings. Overall, students who reported more positive perceptions of the current labour market were more likely to develop higher self-perceptions of employability, believe they had a greater sense of control over their career yet were less engaged with proactive career behaviours. Students perceived employability, their sense of career control and their reported career proactivity positively determined their engagement in career planning. The study enhances our understanding of the impact of labour market demand-side factors on student approaches to careers. It raises significant implications for universities and their career practitioners in identifying ways of enhancing students' career planning strategies within a more challenging labour market context.

Jing, Xiaoli; Ghosh, Ratna; Sun, Zhaohui; Liu, Qiang (2020):

**Mapping global research related to international students. A scientometric review.**

In: *Higher Education* 80 (3), S. 415–433. DOI: 10.1007/s10734-019-00489-y.

*Abstract:*

Although international students have been a notable research topic in higher education for more than 100 years, to date only one qualitative literature review has been published on the topic. In order to help researchers better understand the intellectual landscape of global research related to international students, we conducted a quantitative scientometric review of 3685 relevant journal articles published between 1900 and 2018 and indexed in the Web of Science Core Collection. The findings show that the number of articles published in the field has increased rapidly, especially since 2006, and this expansion has been led primarily by Australia, the U.K., and the USA, as these three countries not only produced most of the high-yielding research institutions and productive authors, but also published a majority of the prolific journals. Among the numerous topics discussed in these selected articles, cross-cultural adjustment, mental health problems,



second-language acquisition, intercultural development, and student migration were most frequently studied, while social integration, graduate employability, and student satisfaction have emerged as new trends. These results complement the existing qualitative literature review from a quantitative perspective and provide valuable insights into and implications for global research related to international students.

Khelifi, Saber; Triki, Mounir (2020):

Use of discretion on the front line of higher education policy reform. The case of quality assurance reforms in Tunisia.

In: *Higher Education* 80 (3), S. 531–548. DOI: 10.1007/s10734-019-00497-y.

*Abstract:*

The renewed interest in Lipsky's street level bureaucracy (SLBy) in a wide array of public sectors brings higher education research's reticent stance on the bottom-up implementation approach to the limelight. This article explores the impact of front line actors' implementation on the Bologna-inspired quality assurance reforms in Tunisia from the lens of Lipsky's SLBy. Specifically, it investigates how academics use their discretion to cope with the ambiguities and complexities of a rule-bound policy reform. It puts the so-called "decentralized approach" to test in the higher education sector by probing Lipsky's claims on policy making at the bottom-end of policy process. This paper's findings are based on interviews conducted with academics in three disciplines at two Tunisian universities. It concludes that academics' use of discretion can question their technical role as "policy takers" as they sometimes tamper with the policy text. However, Lipsky's concept of policy making at the shop-floor remains somewhat overstated.

Kudo, Kazuhiro; Volet, Simone; Whitsed, Craig (2020):

Intercultural relationship development and higher education internationalisation. A qualitative investigation based on a three-stage ecological and person-in-context conceptual framework.

In: *Higher Education* 80 (5), S. 913–932. DOI: 10.1007/s10734-020-00523-4.

*Abstract:*

This qualitative study scrutinised the experiences of intercultural relationship development between international and domestic students at two Japanese private universities, which have contrastive degrees of commitment to internationalisation in regard to stated vision, curriculum, international student enrolment and languages of instruction. Kudo et al.'s (*Higher Education*, 77(3), 473–489, 2019) three-stage ecological and person-in-context conceptual framework was adopted to gain insight into the roles of institutional internationalisation and personal agency in intercultural relationship development. A thematic analysis of interview data from 32 students (14 domestics, 18 internationals) revealed that institutional internationalisation may play a relatively small role in promoting intercultural relationship development compared to students' agency. A detailed examination of the associations between three forms of agency (i.e. situated, cosmopolitan and creative) and three relational stages (i.e. interactivity, reciprocity and unity) led to the identification of cosmopolitan agency as a meaningful hallmark of intercultural relationship development. These findings call for future research aimed at identifying the environmental and individual conditions that are most conducive to the cultivation of cosmopolitan agency in both international and domestic students.

Lambrechts, Agata A. (2020):

The super-disadvantaged in higher education. Barriers to access for refugee background students in England.

In: *Higher Education* 80 (5), S. 803–822. DOI: 10.1007/s10734-020-00515-4.

*Abstract:*

In view of the so-called 'refugee crisis' which began in late 2014, there is a growing potential demand for higher education opportunities amongst refugee communities in England and more widely in Europe. Whilst exact numbers are not certain, it is necessary to establish whether such demands can be met at all. Based on in-depth semi-structured interviews with

nineteen refugees and asylum seekers residing in England, this study explores refugee background students' perceptions of the barriers to higher education and builds on previous research by including participants of varied ages, locations and study statuses — namely, aspiring to enrol, or currently enrolled in universities. While existing previous research provided extensive accounts of barriers to access, these were presented as separate issues, where in reality, these factors rarely occur in isolation. Thus, the analytical focus in this paper concerns how these different barriers to access not only accumulate, but also inter-relate and exacerbate each other, leading to what can be described as a super-disadvantage. This new term is proposed here as indicating the extreme degree of denial of equal access to educational opportunities experienced by those with refugee background, resulting from the added, independent effect of their migration experiences, status, and the socio-economic realities of living as a refugee. It is argued that this 'super-disadvantage' cannot be overcome without deliberate changes to outreach and support delivered by universities. These must be developed in partnerships with third sector experts and the refugee background students themselves.

Lee, Jenny J.; Haupt, John P. (2020):

### Winners and losers in US-China scientific research collaborations.

In: *Higher Education* 80 (1), S. 57–74. DOI: 10.1007/s10734-019-00464-7.

#### Abstract:

This study examined the patterns and nature of science co-publications between the USA and China. Based on a scientometric study of Scopus co-publications over the past 5 years, the results demonstrated a continuous rise of bilateral collaboration between the two countries. Challenging the US political rhetoric and attempts to curb international research engagement with China, the findings demonstrated ways that China plays a leading role in US-China research collaboration, based on first authorship and governmental funding patterns. Findings also showed that over the past 5 years, US research article publications would have declined without co-authorship with China, whereas China's publication rate would have risen without the USA. Using zero-sum and positive-sum frameworks, this study shows the benefits of US collaboration with China for both the US nation-state and global science.

Li, Mengyang; Yang, Rui (2020):

### Enduring hardships in global knowledge asymmetries. A national scenario of China's English-language academic journals in the humanities and social sciences.

In: *Higher Education* 80 (2), S. 237–254. DOI: 10.1007/s10734-019-00476-3.

#### Abstract:

Since the 2000s, China has been fast establishing English-language academic journals to further internationalize research. This article delineates a national scenario of such journals in the humanities and social sciences (HSS) and explores their efforts and predicaments in bringing China's HSS research to the world. Based on first-hand data collected empirically through interviews and documents, it shows that HSS English-language journals in China attempt to challenge yet are conditioned at the same time by the imbalanced international knowledge structure. While still at a preliminary stage of development in terms of quantity and quality, the journals have already been confronted with major challenges including English language hurdles, unfavorable position in research evaluation systems, unfamiliarity with standards of international academic writing and publishing, and tensions between international ambition and local commitment. This article argues that HSS journals in non-Western societies including China need to strike a balance between their contemporary bid for international visibility and long-term contribution to multiple perspectives in global HSS research.

Liu, Xianwei; Zou, Yang; Ma, Yonghong; Gao, Wei (2020):

### What affects PhD student creativity in China? A case study from the Joint Training Pilot Project.

In: *Higher Education* 80 (1), S. 37–56. DOI: 10.1007/s10734-019-00463-8.

#### Abstract:

To understand the factors and their influencing mechanisms on PhD students' creativity, we propose an extended scientific and technical human capital (STHC) model to examine the structural relationships among different sources of social capital,

psychological capital, and PhD students' creativity and to test the moderating role of gender, industry experience, and interdisciplinary experience on the structural model. Data are collected from 201 respondents enrolled in the Joint Training Pilot Project (JTPP) in 2010 and 2011. The results show that (1) university social capital has a significant direct influence on PhD students' creativity, while industry social capital has no significant direct effect; (2) psychological capital partially mediates the relationship between university social capital and creativity and fully mediates the industry social capital and creativity linkage; and (3) gender, industry experience, and interdisciplinary experience moderate several paths. Theoretical and practical implications are discussed, and recommended directions for future research are suggested.

Lo, William Yat Wai; Hou, Angela Yung-Chi (2020):

**A farewell to internationalisation? Striking a balance between global ambition and local needs in higher education in Taiwan.**

In: *Higher Education* 80 (3), S. 497–510. DOI: 10.1007/s10734-019-00495-0.

**Abstract:**

The literature suggests that recent years have witnessed a fundamental shift in higher education internationalisation. This paper argues that a reorientation of policy, which is upheld through an initiative known as the Higher Education Sprout Project, indicates the fundamental shift in higher education internationalisation in Taiwan. The paper begins with an explanation of how the notion of world-class university induced elitism in East Asian higher education. Next, it reviews the last two decades of Taiwan's efforts on developing world-class universities. In particular, the paper explains how perceived domestic problems in higher education, such as an overemphasis on certain performance indicators and the resulting effects of homogenisation, and the phenomenon of emphasising research but neglecting teaching, are considered the consequences of emphasising global competition and the associated quest for building world-class universities. The paper argues that the recent policy change reveals an intention to uphold egalitarianism, thereby reaching a balance between fulfilling global ambition and addressing local needs in higher education. This intention highlights the political essence of internationalisation policy for higher education. It also reaffirms the significance of the global–local dynamics in higher education policy.

Mansouri Nejad, Ali; Qaracholloo, Mahmoud; Rezaei, Saeed (2020):

**Iranian doctoral students' shared experience of English-medium publication. The case of humanities and social sciences.**

In: *Higher Education* 80 (2), S. 255–271. DOI: 10.1007/s10734-019-00478-1.

**Abstract:**

The present study was an attempt to explore international English-medium publication in humanities and social sciences in Iran. In so doing, 50 PhD students from 8 humanities and social sciences disciplines, who had already published or attempted to publish in English-medium journals, were requested to write reflection guide accounts and to take part in follow-up semi-structured interviews. The reflection guide and interview data were analyzed based on the principles of grounded theory research yielding the four major themes of motivations, hurdles, strategies, and call for support. The results indicated that the Iranian PhD students in the fields of humanities and social sciences are strongly motivated to publish in English-medium journals though they face considerable discursive and non-discursive challenges too. Moreover, although they pursue some strategies to rise to these challenges, they could not fight them off on their own and claim support by other more competent academics and officials. The authors also call for a firm action plan to improve the status of English-medium publication in humanities and social sciences. The action plan could count on support from more experienced doctoral students, professors and other university level officials, editors, reviewers, and high-level national policymakers.

Maxwell, T. W.; Chopel, Dendup (2020):

**The impact and outcomes of (non-education) doctorates. The case of an emerging Bhutan.**

In: *Higher Education* 80 (6), S. 1081–1102. DOI: 10.1007/s10734-020-00531-4.

*Abstract:*

This is a follow-up study of the impact of education doctorate holders in Bhutan (Maxwell 2018). A representative sample of doctorate holders contributed to this qualitative study. There were anticipated personal outcomes of gains in confidence and self-esteem. There were considerable gains in knowledge and research skills, and mentoring was clearly an important outcome. However, respondents were equivocal about leadership. Workplace conditions appeared to be creating dissatisfaction. Bhutan appears to be close to, or beyond, the cusp where brain drain takes over from brain gain. This, coupled with the under-representation of females amongst doctorate graduates, means development is most likely to be slowed down unless attended to. Ideas for further research are identified.

McAlpine, Lynn; Castello, Montserrat; Pyhältö, Kirsi (2020):

### What influences PhD graduate trajectories during the degree. A research-based policy agenda.

In: *Higher Education* 80 (6), S. 1011–1043. DOI: 10.1007/s10734-019-00448-7.

*Abstract:*

During the past two decades, PhD graduate numbers have increased dramatically with graduates viewed by governments as a means to advance the knowledge economy and international competitiveness. Concurrently, universities have also invested in policies to monitor satisfaction, retention, and timely completion—and researchers have expanded the study of PhD experience. We, as such researchers, have increasingly received invitations from university decision-makers to present research evidence which might guide their doctoral programs. Their interest provoked us to do a qualitative systematized review of research on doctoral experience—seeking evidence of practices that influenced retention, satisfaction, and completion. The result contributes a synthesis of the critical research evidence that could be used to inform doctoral education policy. We also demonstrate the possibilities of such evidence by suggesting some potential recommendations, while recognizing that there is no direct relationship between research results and their transformation into particular institutional contexts in ways that enhance doctoral experience. We hope our initiative will be taken up and extended by other researchers, particularly the research gaps we note, so we can collectively support the use of research evidence to influence both doctoral policies and practices—with the goal to better prepare PhD researchers for their futures and better support their supervisors.

McCray, Janet; Joseph-Richard, Paul (2020):

### Towards a model of resilience protection. Factors influencing doctoral completion.

In: *Higher Education* 80 (4), S. 679–699. DOI: 10.1007/s10734-020-00507-4.

*Abstract:*

This article asks what makes PhD completers resilient and which resilience protection factors help them complete their doctoral programme? A narrative inquiry methodology is applied to capture the experiences of eleven doctoral students who completed their PhDs in the United Kingdom. Data collected from interview conversations were analysed using resilience theory as a lens. We found that for these completers, success did not rely solely on the individual student, nor was the role of supervisors elevated, particularly for social and emotional support. Of importance were the students' family and social network, institutional context and the nature of university central services and how these were available to the completers. The study's contribution to the literature is in showing how the inter-relationship of the completers' personal responses, environmental and social connections, and institutional processes was available to build resilience, as we present a model for resilience protection in doctoral students. We hope the findings presented will be of interest to PhD students, supervisors and other academic colleagues in universities globally, as they seek insights into successful PhD completion.

McGinn, Noel; Schiefelbein, Ernesto; Froemel, J. Enrique; Lecaros, Alberto (2020):

### An intensive approach for course repeating students at a Chilean University.

In: *Higher Education* 80 (6), S. 1045–1059. DOI: 10.1007/s10734-019-00460-x.

*Abstract:*

Improved access to higher education can reduce social and economic inequality only if universities achieve equality in graduation rates of different groups of students. Concerned about first year failures among first-generation students, a university in Chile devised a between-semesters course intended to allow failed students to remain with their entering class. The course had three major elements: compression of a semester's course work into 2 weeks; use of incentives to motivate students to prepare for classes; and "flipped class" participation. In 2014, this intensive course was offered in the break between the first and second semesters. Some 310 students in Health Sciences who had failed at least one of three required courses were invited to enroll; 140 signed up. At the end of the course, more than 90% of the students taking the intensive course passed the regular final examination they had previously failed and continued with their entering class. With no additional intervention, over the next seven semesters, students who had taken the intensive course performed as well in their courses as those who had not and were less likely to drop out. In 2017, more than 75% were still with their class, compared with 53% of those who had not taken the course.

Mendoza, Pilar (2020):

### Autonomy and weak governments. Challenges to university quality in Latin America.

In: *Higher Education* 80 (4), S. 719–737. DOI: 10.1007/s10734-020-00511-8.

*Abstract:*

Applying grounded theory to 33 expert interviews about the underperformance of higher education in Peru, Chile, Argentina, Uruguay, and Mexico, this study indicated that the historical tradition of autonomy has fostered weak government control, revealing a host of issues common across these countries in their higher education system. This study complicates the overall hegemonic discourse around academic capitalism departing from strictly neoliberal approaches favoring markets and deregulation for global competition. Instead, participants, who are influential leaders in the sector, favor government intervention that protects university autonomy in order to boost the performance of higher education, not for global competition, but for national development.

Merchant, Wendy; Read, Stuart; D'Evelyn, Stephen; Miles, Caroline; Williams, Val (2020):

### The insider view. Tackling disabling practices in higher education institutions.

In: *Higher Education* 80 (2), S. 273–287. DOI: 10.1007/s10734-019-00479-0.

*Abstract:*

This paper reports on research about the experiences of disabled staff members in UK universities, drawing on eleven semi-structured interviews with disabled staff in one university, alongside a group auto ethnography conducted by the first four authors, all of whom identified as disabled academics. Disability is generally considered to be predominantly an issue for students, both in practice and in the literature. By contrast, taking a social practice approach, we focused on the barriers faced by disabled employees, both overt and hidden. We found that disability was still viewed as a medical problem, and that disabled members of staff faced considerable extra labour in organising their own supports. We were often made to feel that we were unwanted and that we were 'misfits' in the institution. This paper contributes to theory by showing how social practices can become exclusionary, and how interconnections between practices matter. We discuss ways in which ableism, based on the ideal of 'individual' excellence, creates barriers for disabled staff. In the global context of Higher Education, the increasing marketization of universities in higher income countries creates a difficult climate for the values of inclusion.

Misra, Debananda (2020):

### A path-dependent analysis of the effect of location on the development of new universities.

In: *Higher Education* 80 (2), S. 289–304. DOI: 10.1007/s10734-019-00480-7.

*Abstract:*

This article examines the effect of location on the development of new universities. The study was conducted in seven new higher education institutions (HEIs) established in India during 1996–2008. I collected the data by conducting semi-

structured interviews with 73 faculty members in the HEIs and from official documents, media reports and opinion pieces about the HEIs. Using the conceptual framework of path dependency, I investigated the tensions and challenges faced by the HEIs in their initial years. I find the placement of the HEIs in their respective locations to be a contingent event that can make the development of HEIs path dependent. I find that the initial conditions and decisions of the HEIs were influenced by the location and led to reactive sequential events in their initial years with effects that were hard to shake off, making their development path dependent. I show that having to develop their infrastructure and constrained by resources, the HEIs started their academic programmes first, followed by their research activities, and outreach and regional engagement.

Musso, Mariel F.; Hernández, Carlos Felipe Rodríguez; Cascallar, Eduardo C. (2020):

### Predicting key educational outcomes in academic trajectories. A machine-learning approach.

In: *Higher Education* 80 (5), S. 875–894. DOI: 10.1007/s10734-020-00520-7.

#### Abstract:

Predicting and understanding different key outcomes in a student's academic trajectory such as grade point average, academic retention, and degree completion would allow targeted intervention programs in higher education. Most of the predictive models developed for those key outcomes have been based on traditional methodological approaches. However, these models assume linear relationships between variables and do not always yield accurate predictive classifications. On the other hand, the use of machine-learning approaches such as artificial neural networks has been very effective in the classification of various educational outcomes, overcoming the limitations of traditional methodological approaches. In this study, multilayer perceptron artificial neural network models, with a backpropagation algorithm, were developed to classify levels of grade point average, academic retention, and degree completion outcomes in a sample of 655 students from a private university. Findings showed a high level of accuracy for all the classifications. Among the predictors, learning strategies had the greatest contribution for the prediction of grade point average. Coping strategies were the best predictors for degree completion, and background information had the largest predictive weight for the identification of students who will drop out or not from the university programs.

O Shea, Seamus; O Hara, Joe (2020):

### The impact of Ireland's new higher education system performance framework on institutional planning towards the related policy objectives.

In: *Higher Education* 80 (2), S. 335–351. DOI: 10.1007/s10734-019-00482-5.

#### Abstract:

This research examines the implementation of Ireland's higher education system performance framework (HESPF), through its first 3-year cycle 2014–2017, in a sample of Higher Education Institutions (HEIs). In particular, it examines the extent to which the HESPF aids or inhibits HEI planning towards the related national policy objectives. Integral to the HESPF are performance agreements (PAs) that specify how HEI strategies contribute to national priorities. An exploratory case study design frame is used to address the research question, with cases drawn from small, medium-sized and large institutions. A concurrent triangulation design strategy is deployed with qualitative data drawn from 24 key informants and PAs, and quantitative data elicited from 92 questionnaires. Oliver's strategic response framework was adapted for deployment in the study. The design of the PAs associated with the HESPF is generally consistent with the core building blocks of PAs internationally. The HESPF is generally considered a good concept that has resulted in constructive relationship building between the Higher Education Authority (HEA) and HEIs.' Strategic planning capacity building, self-reflection and institutional learning are regarded as strengths of the process. However, it appears that the levers being used by the HEA to bring about performance improvements are having very little behavioural influence. Reputation and a desire to respond to regional and national needs along with global expectations appear to be driving performance. The process is not operating at a sufficiently strategic level and lack of enabling/incentive funding is regarded as a major weakness.

O'Brien, Dai (2020):

### Mapping deaf academic spaces.

In: *Higher Education* 80 (4), S. 739–755. DOI: 10.1007/s10734-020-00512-7.

*Abstract:*

This article focuses on the experience of signing deaf academics working in higher education institutions (HEIs) in the UK. I utilise a research method previously unused in this context, eco-mapping, to explore the ways in which deaf academics see themselves and their involvement in their home HEIs and in the academic field more generally. I review the available literature of deaf academic experience in the UK before using extensive quotes from research interviews to illustrate how the burden of making their own workplaces accessible usually falls on the shoulders of deaf academics. I also show that there is a lack of appreciation of the emotional labour and time demands that such work requires from the academics' workplaces using a Lefebvrian understanding of time. I end with some reflections on the method used and on the implications of the barriers deaf academics and those from other linguistic minority communities can face in HEIs in the UK.

Oonk, Carla; Gulikers, Judith T. M.; den Brok, Perry J.; Wesselink, Renate; Beers, Pieter-Jelle; Mulder, Martin (2020):

**Teachers as brokers. Adding a university-society perspective to higher education teacher competence profiles.**

In: *Higher Education* 80 (4), S. 701–718. DOI: 10.1007/s10734-020-00510-9.

*Abstract:*

Higher education institutions are increasingly engaged with society but contemporary higher education teacher competence profiles do not include university-society oriented responsibilities of teachers. Consequently, comprehensive insights in university-society collaborative performance of higher education teachers are not available. This study empirically develops a teacher profile for an exemplary university-society oriented, multi-stakeholder learning environment and builds an argument for university-society collaborative additions to existing higher education teacher profiles. A showcase example of a new university-society collaborative, multi-stakeholder learning environment, the Regional Learning Environment (RLE), provides the context of analysis. Thirteen RLE establishments were included in the study. The study uses a descriptive qualitative design, triangulating data from RLE documents, teacher interviews and focus groups with teachers and managers on RLE teacher roles, tasks and competencies. The resulting RLE teacher profile comprises nine roles, nineteen tasks and 21 competencies. The new profile echoes scattered indications for teacher responsibilities as identified in previous studies on teaching and learning in university-society collaborative learning settings. The study argues that the role of broker, including boundary crossing competence, and the competency 'stimulating a collaborative learning attitude', might be added to existing higher education teacher competence profiles. Adding this university-society engaged perspective to existing teacher competence profiles will support higher education institutions in developing their university-society collaborative responsibilities and subsequent teacher professionalisation trajectories.

Pappa, Sotiria; Elomaa, Mailis; Perälä-Littunen, Satu (2020):

**Sources of stress and scholarly identity. The case of international doctoral students of education in Finland.**

In: *Higher Education* 80 (1), S. 173–192. DOI: 10.1007/s10734-019-00473-6.

*Abstract:*

Although stressors and coping strategies have been examined in managing stress associated with doctoral education, stress continues to have a permeating and pernicious effect on doctoral students' experience of their training and, by extension, their future participation in the academic community. International doctoral students have to not only effectively cope with tensions during their training and their socialization in their discipline but also address the values and expectations of higher education institutions in a foreign country. Considering the increase of international doctoral students in Finland, this study focuses on perceived sources of stress in their doctoral training and how their scholarly identity is involved when responding to them. The study draws on thematically analyzed interviews with eleven international doctoral students of educational sciences. The participants, one man and ten women, came from nine countries and conducted research in six Finnish universities. The principal sources of stress identified were intrapersonal regulation, challenges pertaining to doing research, funding and career prospects, and lack of a supportive network. Despite the negative presence of stress, most participants saw stress as a motivating element. However, in order for stress to become a positive and motivational force, participants had to mediate its presence and effects by means of personal resources, ascribing meaning and purpose to their research, and positioning themselves within their academic and social environment. The study argues for stress as a catalyst for scholarly identity negotiation and professional development when perceived positively.

Pitman, Tim; Edwards, Daniel; Zhang, Liang-Cheng; Koshy, Paul; McMillan, Julie (2020):

### Constructing a ranking of higher education institutions based on equity. Is it possible or desirable?

In: *Higher Education* 80 (4), S. 605–624. DOI: 10.1007/s10734-019-00487-0.

#### Abstract:

This paper presents findings from a research project which aimed to rank Australian higher education institutions on their 'equity performance'; that is, the extent to which they were accessible for, supportive of and benefiting students traditionally under-represented in higher education. The study comprised a conceptual consideration of how higher education equity might be defined and empirically measured, drawing on extant scholarly research as well as observations from key stakeholders, including equity practitioners, researchers, policymakers and higher education executives and institutional planners. Based on these findings, a theoretical framework for higher education equity performance was constructed, and performance indicators identified and subjected to systematic assessment for real-world application. The ensuing ranking system was populated with institutional data from the 37 public universities in Australia. The findings from this analysis indicate that a ranking system may not be the optimal method for assessing higher education equity performance and highlights the subjective nature of both higher education equity and higher education ranking systems.

Ploner, Josef; Nada, Cosmin (2020):

### International student migration and the postcolonial heritage of European higher education. Perspectives from Portugal and the UK.

In: *Higher Education* 80 (2), S. 373–389. DOI: 10.1007/s10734-019-00485-2.

#### Abstract:

Whilst the presence of international students from so-called 'developing' or 'newly industrialised' countries has become a ubiquitous phenomenon in European higher education, few scholars have explored the underlying postcolonial trajectories that facilitate student migration to many European countries today. In this article, we seek to narrow this gap by critically engaging with the postcolonial heritage of European higher education and the ways in which it informs much student migration in today's era of neoliberal globalisation. We propose a three-fold approach to reading this postcolonial heritage of higher education which comprises its historical, epistemic, and experiential (or 'lived') dimensions. Whilst such an approach requires a close examination of existing postcolonial theory in higher education studies, we also draw on qualitative research with student migrants in Portugal and the UK to show how the postcolonial heritage of European higher education is negotiated in everyday contexts and may become constitutive of students' identity formations.

Rocconi, Louis M.; Liu, Xiqian; Pike, Gary R. (2020):

### The impact of person-environment fit on grades, perceived gains, and satisfaction. An application of Holland's theory.

In: *Higher Education* 80 (5), S. 857–874. DOI: 10.1007/s10734-020-00519-0.

#### Abstract:

Holland's theory of vocational choice is a powerful framework for studying academic environments and student development in college. This study tests Holland's third proposition that students flourish in academic environments (i.e., majors) that are congruent with their personality types. In addition, we examine the extent to which student characteristics influence person-environment fit. Findings indicated that student characteristics and personality type were significantly related to person-environment fit. Moreover, person-environment fit is positively related to self-reported grades. However, person-environment was not significantly related to either perceived learning gains or satisfaction with college.



Rossier, Thierry (2020):

Accumulation and conversion of capitals in professorial careers. The importance of scientific reputation, network relations, and internationality in economics and business studies.

In: *Higher Education* 80 (6), S. 1061–1080. DOI: 10.1007/s10734-020-00508-3.

*Abstract:*

This paper studies the different biographic pathways to an economics and business studies professor position between 1957 and 2000 on the specific case of Switzerland. It focuses on the accumulation and conversion of capitals during academic trajectories, and their relation to three types of resources: scientific reputation, network relations, and internationality. Based on an original biographical database of 411 professors and an innovative use of sequence analysis and multinomial logistic regression, it shows that the three main principles of career structuration divide them between (1) academic and extra-academic trajectories, (2) “standard” positions and executive positions in influential academic organizations, and (3) according to the timing of the accession to a professor position (“early” vs. “slower” appointments). It also shows that careers are increasingly academic between 1957 and 2000. Academic only and long full professor trajectories are linked to reputation in the scientific field (through citations in “prestigious” journals) and internationality of the professors’ profile, while an earlier appointment as professor is associated to developed scientific collaboration networks. Relatively long careers in executive positions in influential academic organizations are linked to important connections to economic, political, and administrative “elite” members (through the supervision of their PhD) as well as scientific expertise for the state, while extra-academic careers only lead to subordinate (associate) professor positions and no detention of other resources within economics and business studies whatsoever.

Sigahi, Tiago Fonseca Albuquerque Cavalcant; Saltorato, Patrícia (2020):

Academic capitalism. Distinguishing without disjoining through classification schemes.

In: *Higher Education* 80 (1), S. 95–117. DOI: 10.1007/s10734-019-00467-4.

*Abstract:*

Academic capitalism (AC) has become one of the most influential lines of research into markets in higher education (HE). However, researchers often use AC only as an umbrella term while key concepts remain superficially explored and intertwined topics treated disjointed. By means of a systematic literature review, our main contribution is the proposal of two classification schemes based on (a) analytical levels (macrostructural, organizational, and individual) and actors, and (b) themes and contributions (Exploration and reflection; Creation of theoretical framework; Research topics and applications; New trends). The idea that underlies both proposals is distinguishing without disjoining. Distinguishing is an operation that researchers can benefit from, while disjoining risks leading to blindness by not capturing the complexity of AC. Distinguishing analytical levels and actors provides a clearer view of how actors position themselves in the field, how they interconnect, and how their actions resonate at other levels. Distinguishing themes and contributions allows categorizing the wealth of research into smaller units for deeper analysis. Both contribute to researchers in positioning their theoretical contributions in the literature. This study may advance research not only on AC, but also in understanding the several ways the neoliberal restructure has been playing out in HE.

Tran, Ly Thi; Le Nghia, Tran Huu (2020):

Leadership in international education. Leaders’ professional development needs and tensions.

In: *Higher Education* 80 (3), S. 479–495. DOI: 10.1007/s10734-019-00494-1.

*Abstract:*

This paper explores the professional development needs of leaders in response to emergent demands for leadership and competing pressures within the changing landscape of Australian international education. Framed within Bourdieu’s concepts of field and habitus, this study addresses five dimensions of professional development needs reported by leaders in international education: understanding of and skills to work across cultural differences, knowledge of and expertise to respond to policy changes and emergent trends, leadership and management skills targeted for internationalisation, networking and relationship management skills to work with increasingly diverse and ‘non-traditional’ stakeholders and research skills. However, the social field in which these leaders are functioning is causing tensions for their continuing professional development, including existing institutional governance and structures, financial constraints and the institutional culture that has not put internationalisation on the top of institutional development agenda. The study

indicates a critical need for tackling obstacles and supporting sustainable situated professional learning for these leaders so as to enhance their capacities and impact as key players in international education. This study provides empirical and theoretical insights for institutions involved in international education to build effective policies and practices for enhancing professional development for the sustainable international education leadership.

Uslu, Baris (2020):

**A path for ranking success. What does the expanded indicator-set of international university rankings suggest?**

In: *Higher Education* 80 (5), S. 949–972. DOI: 10.1007/s10734-020-00527-0.

*Abstract:*

Despite some theoretical and technical criticism, scholars largely acknowledge the influence of universities' ranking positions on the preferences of fund providers, academics and students, nationally and internationally. Considering their noticeable contribution to university rankings, prominent indicators can guide university leaders to develop better strategies by targeting common aspects of international ranking systems. The purpose of this research is therefore to specify the significant indicators and to examine their individual weight through an expanded indicator-set of international university rankings. The research benefited from the predictive approach of correlational research. The dataset was composed of universities' scores in the 2018 ARWU, THE, QS and URAP world university rankings and includes the scores of 224 universities. The data were re-organised following the expanded indicator-set previously formulated by the researcher. Regression analyses were then employed in two steps to explore significant predictors through the expanded indicator-set. The researcher also re-calculated the percentage values of seven combined indicators: citation, income, internationalisation, prize, publication, reputation and ratios/degrees. The findings showed that while all these indicators are statistically significant, the components of research reputation contribute 73.71% to universities' ranking scores. On the other hand, income is the only negative contributor with a weight of – 1.78%. The research also revealed that when comparing two scores based on re-calculated and assigned weights, only 19 universities occupy the same position among the 224 universities. Following these results, the researcher then discusses various policies and practices with the potential to expedite universities' ranking success. Considering the data reliability and longitudinal feasibility, several recommendations were also developed for further research on university ranking systems.

Winks, Lewis; Green, Nicholas; Dyer, Sarah (2020):

**Nurturing innovation and creativity in educational practice. Principles for supporting faculty peer learning through campus design.**

In: *Higher Education* 80 (1), S. 119–135. DOI: 10.1007/s10734-019-00468-3.

*Abstract:*

While much work has focused on pedagogical innovation processes within universities, less has been said of the processes and cultures which foster and give rise to creativity within higher education and the ways in which faculty members are encouraged to develop their pedagogy across disciplines and within their departments. This paper examines the ways campus spaces at a UK university are utilised by staff for peer learning and the barriers and affordances for innovation and creativity in educational practice. Utilising an interdisciplinary design, this paper suggests that the various spaces available to university teaching staff are able to be further utilised to support creative practice and peer learning, presented as four design principles: innovation happens in everyday spaces, communal spaces need social functions, forums have different scales, and collaborative spaces require a collective culture. The normalising of a culture of innovation requires both physical and behavioural adjustments to the use of space, suggesting that both faculty and institutions need to work together to reimagine spaces for faculty peer learning.

Wu, Lingli; Yan, Kun; Zhang, Yuqi (2020):

**Higher education expansion and inequality in educational opportunities in China.**

In: *Higher Education* 80 (3), S. 549–570. DOI: 10.1007/s10734-020-00498-2.

*Abstract:*

In line with global trends, China experienced a rapid expansion in its higher education system in the second half of the twentieth century, and has seen especially large growth since the early 2000s. The expansion of higher education means an increase in the total quantity of educational opportunities. Although it is expected that education expansion can lead to a more equalized distribution of educational opportunities, based on the extant research in China, there is currently no consensus regarding the impact of higher education expansion on equality in educational opportunity. Moreover, only a few researchers have examined the difference in its impact between elite and non-elite higher education. By analyzing the data from the Chinese General Social Survey (CGSS) 2015, this study aims to investigate the relationship between higher education expansion and inequalities in educational opportunities in the context of China and to analyze the difference in the influence of this expansion between elite and non-elite higher education. The findings of this study show that, except for gender disparity, inequalities affected by household registration, family economic status, and parental education level were not ameliorated after expansion. In addition, the decrease in gender inequality in access to higher education was greater in elite than non-elite higher education. Possible reasons and policy implications are given based on the data analysis in this paper.

Xie, Ailei; Reay, Diane (2020):

### Successful rural students in China's elite universities. Habitus transformation and inevitable hidden injuries?

In: *Higher Education* 80 (1), S. 21–36. DOI: 10.1007/s10734-019-00462-9.

*Abstract:*

Current literature suggests two kinds of congruence that come into play when students from lower socioeconomic backgrounds enter elite universities: academic fit and social fit. Yet, in most of the studies on habitus transformation, the differences between the two are seldom mentioned. This may imply that the transformation of one aspect guarantees success in the transformation of the other aspect. In this article, we present the data from an ongoing longitudinal study on a group of academically successful rural students at four Chinese elite universities. We will show how they start with a compartmentalized fit between their original habitus and the elite milieu they enter, and how this pattern tends to produce two different types of outcomes: “habitus transformation” and “habitus hysteresis.” Importantly, with either of these outcomes, these students do not have to experience “hidden injuries of the class,” alienating themselves from families and former peer groups.

Xie, Chaoqun; Teo, Peter (2020):

### Institutional self-promotion. A comparative study of appraisal resources used by top- and second-tier universities in China and America.

In: *Higher Education* 80 (2), S. 353–371. DOI: 10.1007/s10734-019-00483-4.

*Abstract:*

Abstract Self-promotion is a ubiquitous institutional practice of universities worldwide. It serves a variety of high-priority institutional purposes such as vying for a pre-eminent position in university league tables, recruiting students and academics, attracting governmental and private funds, and seeking university-business cooperation opportunities. Central to self-promotion is the role that language plays. Previous studies have conducted linguistic analyses to uncover universities' promotional strategies. However, few have examined how universities appraise themselves from a cross-cultural and cross-tier perspective. Drawing on a discourse analysis approach, this study examined how 160 top- and second-tier Chinese and American universities appraised themselves in the About Us texts on their official websites. Cross-country and cross-tier comparisons were conducted by determining the frequencies of specific appraisal resources and performing a close analysis of the functions and features of these resources. The findings revealed significant cross-country and cross-tier differences in the ways the universities project and position themselves to their stakeholders. These differences are discussed against the backdrop of particular socio-cultural, socio-political, and socio-economic factors that constitute the ecologies of higher education.

Xu, Xin (2020):

China 'goes out' in a centre–periphery world. Incentivizing international publications in the humanities and social sciences.

In: *Higher Education* 80 (1), S. 157–172. DOI: 10.1007/s10734-019-00470-9.

*Abstract:*

The current expansion of English language publishing by scholars from China is supported by national and university policies, including monetary and career incentives to publish in English. These incentives, which extend to work in the humanities and social sciences (HSS, the focus of this paper) as well as the sciences and technologies, are situated in evolving strategies of internationalization. China has moved from an internationalization strategy simply based on learning from the West, to a 'going out' strategy designed to both lift domestic research capacity and advance China's influence in the world. However, the 'going out' strategy nonetheless embodies ambiguities and dilemmas. The world of academic knowledge is not a level playing field but more closely approximates the centre–periphery dynamic described in world systems theory. This study explores the influence of publication incentives in the context of a centre–periphery world. It draws on analysis of 172 institutional incentive documents and interviews with 75 HSS academics, university senior administrators, and journal editors. The study identifies practices within China's HSS that reproduce centre–periphery relationships. By focusing on international publications, Chinese universities run the risk of downplaying Chinese-language publications and adopting standards and norms from global centres to assess domestic knowledge production. These could result in creating knowledge from and about China primarily in Western terms without adding a distinctive Chinese strand to the global conversation. Nonetheless, the study also identifies alternative dynamics that challenge the existing power hierarchies in global HSS, highlighting indigenous knowledge and the need to pluralize global knowledge production.

Yan, Kun; Wu, Lingli (2020):

The adjustment concerns of rural students enrolled through special admission policy in elite universities in China.

In: *Higher Education* 80 (2), S. 215–235. DOI: 10.1007/s10734-019-00475-4.

*Abstract:*

To date, little research has focused solely on rural students' adjustment and integration on campus after admittance into elite universities through special admission policies. This qualitative inquiry aims to uncover the adjustment concerns faced by rural students enrolled through special admission policies in elite universities in China. The study findings are discussed and analyzed in Bernstein's conceptual framework. The study revealed that students were mainly faced with two kinds of concerns, academic and social-cultural. The findings of this study have important implications for faculty and administrators at prestigious universities in China. As the elite universities commit themselves to recruiting more rural students, attention must be paid on how to best support and incorporate rural students into the lives of these campuses. It is important to develop a friendlier and more inclusive ethos in elite universities in China.

Yang, Jinyu; Hoskins, Bryony (2020):

Does university have an effect on young people's active citizenship in England?

In: *Higher Education* 80 (5), S. 839–856. DOI: 10.1007/s10734-020-00518-1.

*Abstract:*

Educational attainment measured by years of education has been widely reported as leading to higher levels of political participation. The theory is that education plays an important role in a person's civic skills and cognitive capacity that helps them understand and connect with the world of politics and be able to defend their interests (Nie et al. 1996). However, a number of studies argue that education has no effect on political engagement as educational attainment has been identified as a proxy for socioeconomic background and cognitive ability. In order to examine whether the university has an effect on young people's intentions for active citizenship in England, hybrid cumulative logit models are used in the Citizenship Education Longitudinal Study (CELS) 2009–2014 with between and within effects which help explain differences between individuals and within individuals at different time points. Control measures of previous citizenship education are also included in the analysis. We find that the university has a positive independent effect on intentions to vote, a negative effect on intentions to volunteer, but not on intentions to protest in the future for young people in England. These findings help clarify the role of higher education (HE) in developing and maintaining democracy and social cohesion.

Yu, Yun (2020):

From universities to Christian churches. Agency in the intercultural engagement of non-Christian Chinese students in the UK.

In: *Higher Education* 80 (2), S. 197–213. DOI: 10.1007/s10734-019-00474-5.

*Abstract:*

This study links the agency lens with the intercultural engagement of international students and examines how agency is affecting and is affected by the church participation (rather than other social engagement within universities) of non-Christian Chinese students in the UK. Adopting agency and adaptation theories, this research analyses quantitative data from questionnaires answered by 501 Chinese students and qualitative data from interviews with 15 students. The result shows that agency offers a critical perspective in terms of cross-cultural engagement for international students, and it complements a broader approach to understanding adaptation and self-formation in cross-border educational experiences. The research proposes a new theory, Theory of Agentive Cross-cultural Adaptation, and highlights the changes in agency and reflexivity modes throughout students' international educational journeys whereby they actively respond to their own individual needs, address their problematic situations, and construct their personal intercultural spaces both within and beyond the university campus. In particular, Chinese students managed the different modes of relationships based on church experience and negotiated the identity paradox between "cultural interpreters" and "believers" in terms of their understanding of Christianity. The study encourages universities to facilitate spaces of intercultural engagement for international students to exercise their agency within the university and wider social contexts.

Zerquera, Desiree; Ziskin, Mary (2020):

Implications of performance-based funding on equity-based missions in US higher education.

In: *Higher Education* 80 (6), S. 1153–1174. DOI: 10.1007/s10734-020-00535-0.

*Abstract:*

Upholding an equity-focused mission can be challenging for administrators, particularly in light of recently implemented policies that center funding based on student performance. Based on interviews with administrators across four universities in the same state, this work examines the ways in which performance-based funding (PBF) requirements are interacting with the public-serving mission of urban-serving research universities (USRUs) in the USA. Key findings highlight perceived tensions between PBF and USRUs, implications of these tensions of the understanding and enactment of the USRU mission, redefining of concepts of improvement, and implications of PBF on deepening stratification across a differentiated system.

Zou, Tracy X. P.; Chu, Beatrice C. B.; Law, Lisa Y. N.; Lin, Vienne; Ko, Tiffany; Yu, Michael; Mok, Phoebe Y. C. (2020):

University teachers' conceptions of internationalisation of the curriculum. A phenomenographic study.

In: *Higher Education* 80 (1), S. 1–20. DOI: 10.1007/s10734-019-00461-w.

*Abstract:*

Internationalisation of the curriculum (IoC) is on the agenda of many higher education (HE) institutions worldwide. Typically seen as associated with a top-down strategy, IoC often meets resistance from university teachers, many of whom struggle to understand its relevance to teaching practice. This phenomenographic study investigates university teachers' conceptions of IoC. Five conceptions ranging in sophistication have been identified. The least sophisticated focuses on making the curriculum content internationally relevant, whereas the most sophisticated centres around developing self-awareness, awareness of others, and a change in mindset in students. The latter is realised by embracing reflexivity and criticality and, more importantly, utilising societal and political issues as learning opportunities for identity development. Situated in the Hong Kong context, the findings not only suggest the need for teachers to shift their focus from curriculum content to value-based development but also for educators to reflect on their role in helping students to reconcile their identity in relation to their counterparts regionally and globally.

## Reviews

Dong, Na; Chen, Zhihui (2020):

Seldon, A., and Abidoye, O.: The fourth education revolution. Will artificial intelligence liberate or infantilise humanity Buckingham, University of Buckingham, 2018, (ISBN: 978-1908684950) p370 (paperback), \$22.50 (US).

[Review]. In: *Higher Education* 80 (4), S. 797–799. DOI: 10.1007/s10734-020-00506-5.

Fang, Jie; Zhai, Junqing (2020):

Abdulrahman Al-Youbi, Adnan Zahed, William Tierney (ed): Successful global collaborations in higher education institutions, Switzerland, Springer, 2020, 101 pp., (ISBN 978-3-030-25524-4) €51.99 (hardcover).

[Review]. In: *Higher Education* 80 (3), S. 597–599. DOI: 10.1007/s10734-019-00493-2.

Fu, Wangqian; Larbi, Frank Okai (2020):

Hans de Wit, Jocelyne Gacel-Ávila, Elspeth Jones & Nico Jooste: The globalization of internationalization. Emerging voices and perspectives, Routledge, Oxon and New York, 2017, (ISBN-13: 9781138100664).

[Review]. In: *Higher Education* 80 (3), S. 593–595. DOI: 10.1007/s10734-019-00492-3.

Nyamnjoh, Anye-Nkwenti (2020):

Jonathan D. Jansen (ed): Decolonisation in universities. The politics of recognition, Johannesburg: Wits University Press, 2019.

[Review]. In: *Higher Education* 80 (3), S. 601–603. DOI: 10.1007/s10734-020-00499-1.

Scott, Peter (2020):

Michael Shattock, Aniko Horvath: The governance of British higher education. The impact of governmental, financial and market pressures, Bloomsbury Academic Press (Bloomsbury Higher Education Research), 2020, (ISBN 978-1-3500-7402-6) 198 pages, £90.

[Review]. In: *Higher Education* 80 (3), S. 589–591. DOI: 10.1007/s10734-019-00488-z.

Xu, Bingna; Kan, Yue (2020):

Higher education challenges for migrant and refugee students in a globalized world. Edited by Khalid Arar, Kussai Haj-Yehia, David B. Ross and Yasar Kondakci, New York, NY: Peter Lang Publishing, Inc., 2019, 377pp.

[Review]. In: *Higher Education* 80 (1), S. 193–195. DOI: 10.1007/s10734-019-00465-6.

Zhang, Baicheng (2020):

Louise M. Thomas, Anne B. Reinertsen: Academic writing and identity constructions. Performativity, space and territory in academic workplaces Palgrave Macmillan, New York, 2019, pp. 209.

[Review]. In: *Higher Education* 80 (2), S. 391–393. DOI: 10.1007/s10734-019-00477-2.

## Specials

Demir, Mehmet (2020):

Correction to: Using online peer assessment in an Instructional Technology and Material Design course through social media, <https://doi.org/10.1007/s10734-017-0146-9>.

[Correction]. In: *Higher Education* 80 (4), S. 801. DOI: 10.1007/s10734-020-00505-6.

### Abstract:

The original version of this article unfortunately requires correction with respect to the affiliation of the author. The correction is shown below and this is already reflected in the affiliation section of this Correction (Erratum) paper:

Affiliation 1: Department of Curriculum and Instruction, School of Education University of Pittsburgh, Collaborative for Evaluation and Assessment Capacity, 4139WWPH 230 S. Bouquet St., Pittsburgh, PA 15260, USA.

Affiliation 2: Saray Kent mah. Dogukan sk. Mirac apt. Kat 4 No:10 Antakya/Hatay/ Turkey.

## Editorials

Arar, Khalid; Kondakci, Yasar; Streitwieser, Bernhard (2020):

Higher Education for Forcibly Displaced Migrants, Refugees and Asylum Seekers.

[Introduction]. In: *Higher Education Policy* 33 (2), S. 195–202. DOI: 10.1057/s41307-020-00184-z.

## Original Articles

Arar, Khalid; Kondakci, Yasar; Kaya Kasikci, Sevgi; Erberk, Elif (2020):

Higher Education Policy for Displaced People. Implications of Turkey's Higher Education Policy for Syrian Migrants.

In: *Higher Education Policy* 33 (2), S. 265–285. DOI: 10.1057/s41307-020-00181-2.

### Abstract:

This study investigates Turkey's higher education (HE) policy for Syrian refugee students (SRSs) by examining the experiences of the students and documenting political, social and cultural dynamics behind these experiences. The study reviewed reports, notices and circulars in order to capture the key tenets of the Turkey's HE policy for the Syrian refugee students. In order to reveal the experiences of the students, 27 interviews were conducted with a group of students who are studying at a public university, which is located in the eastern part of the country. The results, first, revealed that Turkey's HE policy follows a reactive track in that the ongoing challenges have caused modification, alteration or additions into the policy. Second, both the interview results and key reports suggest documentation, language barrier, finance and guidance as the key challenges for SRSs, which inform HE policy of Turkey. Third, the students commented on the restorative impact of the higher education for normalizing their lives in a host country and building a future prospect for their own life. However, the conflicts between Syrian and Turkish students suggest that the Syrian refugee crisis goes beyond a refugee crisis and has complex sociological and political connotations, which push the issue of Syrian refugee into more repelling grounds. Further conclusions and implications are discussed.

Bégin-Caouette, Olivier; Jansson, Joel; Beaupré-Lavallée, Alexandre (2020):

The Perceived Contribution of Early-Career Researchers to Research Production in Nordic Higher Education Systems.

In: *Higher Education Policy* 33 (4), S. 777–798. DOI: 10.1057/s41307-018-0125-5.

### Abstract:

In the global race for academic prestige, early-career researchers (ECRs) play a pivotal role in countries' research production. The objective of this paper is to analyse the perceived contribution of ECR to research production in Nordic higher education systems (HES). Based on 56 interviews with actors from different organisations in the Danish, Finnish, Norwegian and Swedish HES, the thematic analysis suggested the contribution of doctoral students and postdocs was essential, yet there was no convergence in actors' perspective regarding the contribution of other contract researchers.



The global theme “casualisation” linked organising themes and explained the underlying dynamics between ECRs and the research production process.

Chan, Wing-kit; Wu, Xuan (2020):

**Promoting Governance Model Through International Higher Education. Examining International Student Mobility in China between 2003 and 2016.**

In: *Higher Education Policy* 33 (3), S. 511–530. DOI: 10.1057/s41307-019-00158-w.

**Abstract:**

The number of international students studying for a degree program in China was approaching a quarter of a million in 2017, roughly ten times that in 2003. China, a developing country, has become one of the biggest destinations for international student mobility (ISM). Thus, how it has managed to achieve this within only one and a half decades, what it plans to do with such a success, and what that means for the world remain open for interpretation. This increase is an economical grow which demonstrates the country’s success in governance and generosity in international aid, while it is also a result of an internationalization policy of higher education which is viewed by central government as an arena for exercising soft power in world politics. It is difficult when trying to reach a persuasive conclusion without a comprehensive review of what happened in this period via a thorough examination of ISM data in a context of rapid policy change. This paper consists of four sections to identify the key driver(s) behind this sharp rise of student numbers from overseas. The first section is an introduction with a brief review of both theoretical and empirical aspects, followed by a short discussion on methodology. The second section is a review of key policy documents impacting on the development of ISM in modern China. The third section provides a general picture of ISM policy in China by analyzing official data. The final section reflects on the findings of the present study and concludes the paper.

Dill, David D. (2020):

**Enhancing Academic Quality and Collegial Control. Insights from US Policy on the Ethical Conduct of Human Subjects’ Research.**

In: *Higher Education Policy* 33 (1), S. 45–64. DOI: 10.1057/s41307-018-0093-9.

**Abstract:**

Government initiatives and regulations intended to assure academic quality have been implemented in many countries over the last 25 years. Because of reservations about the effectiveness of these externally oriented policies, they have undergone continual change and adaptation. A number of countries are now experimenting with internally oriented policies focusing on the reform or “enhancement” of a university’s own collegial processes for assuring academic quality in teaching and student learning. During these same years many developed countries also implemented national policies regulating human subjects’ research within their universities. What might be learned from the experience with national policies on human subjects’ research that could help inform the design of more effective national policies intended to improve and enhance the quality of education within universities? This question is explored through an analysis of the development of US policy on human subjects’ research as well as its implementation and impacts at a major American research university.

Dunwoodie, Karen; Kaukko, Mervi; Wilkinson, Jane; Reimer, Kristin; Webb, Sue (2020):

**Widening University Access for Students of Asylum-Seeking Backgrounds. (Mis)recognition in an Australian Context.**

In: *Higher Education Policy* 33 (2), S. 243–264. DOI: 10.1057/s41307-019-00176-8.

**Abstract:**

Despite the intensely competitive international higher education sector, universities can still play a role in providing public good through building social solidarity and mobility in volatile and increasingly divided societies. This paper draws on a longitudinal narrative enquiry that follows 22 students from asylum-seeking backgrounds in Australian universities—a distinct group within the category of forced migration whose university experiences have rarely been studied. It explores

the students' visceral realities and tensions as they attempt to navigate government and institutional policies and practices which fail to recognise the unique category and needs of this distinct group. The paper develops a conceptual frame comprising a critical theory of recognition (Axel Honneth) and the feminist developments of recognition (Nancy Fraser). It explores how competing discourses are being played out in Australian universities about the educational needs of students from asylum-seeking backgrounds. Finally, it critically reflects on the role of universities' policies and practices in enabling and/or constraining public good through recognising the unique needs of students of asylum-seeking backgrounds.

Elwick, Alex (2020):

### The Values of English Universities. Questioning the Role of Value Statements and Mapping Their Current Focus.

In: *Higher Education Policy* 33 (3), S. 571–590. DOI: 10.1057/s41307-018-0112-x.

#### Abstract:

Universities now routinely promote value statements in order to express their beliefs and moral principles—adopting the practice of many commercial organisations. However, such value statements have rarely been collated or studied across the sector, which is what this paper sets out to do. Focusing on English universities, current value statements were collected and thematically analysed in order to assess what values universities in England claim to embrace; whether there are patterns in these value statements; and how these values are used to characterise the 'business' of higher education. A small number of key themes are used to typify value statements across a majority of institutions and differences between sub-groups of universities are identified. The paper concludes by questioning why universities adopt and publicise value statements and what role they might play in universities' projections of themselves.

Fu, Yuan-Chih; Baker, David P.; Zhang, Liang (2020):

### Engineering a World Class University? The Impact of Taiwan's World Class University Project on Scientific Productivity.

In: *Higher Education Policy* 33 (3), S. 555–570. DOI: 10.1057/s41307-018-0110-z.

#### Abstract:

High profile, university excellence initiatives are becoming increasingly popular national R&D policies globally, with 23 nations implementing some form of an excellence initiative from 1995 to 2013. While differing in tactics, their common strategy is to fund accumulated advantage in science productivity, intentionally stimulating a world-class university among selected best universities to lift their capacity to compete internationally with the world's most research-intensive universities. Here a ten-year difference-in-differences statistical evaluation of rates of scientific publications of Taiwan's much-publicized, university excellence initiative "World Class University Project" yields findings unanticipated by the policy design. Significant financial resources provided to the selected and designated "World Class Universities" (WCUs, treatment group) did increase their volume and rate of publication of scientific papers overall and in more prestigious journals, but not at the policy's anticipated accelerated rate. Also, interestingly the non-selected, less research-intensive universities (control group) also increased their publication rate in parallel and sometimes more than the WCUs over the same period. A possible diffusion effect of institutional norms, greater inter-institutional competition, and isomorphism around science productivity generated by the implementation of the policy is examined and discussed in light of the global spread of university excellence initiatives.

González Ramos, Ana M.; Conesa Carpintero, Ester; Pons Peregrort, Olga; Tura Solvas, Marta (2020):

### The Spanish Equality Law and the Gender Balance in the Evaluation Committees. An Opportunity for Women's Promotion in Higher Education.

In: *Higher Education Policy* 33 (4), S. 815–833. DOI: 10.1057/s41307-018-0103-y.

#### Abstract:

Despite advances in gender policy and equality laws in the twenty-first century, women are still a minority in the full professor category in Europe. Some measures establish gender quotas to balance gatekeeper positions, which will

supposedly pave the way to make women's integration into senior higher education positions easier. In Spain, Organic Act 3/2007 of 22 March on effective equality between women and men launched progressive norms governing gender issues, and the Spanish Science and Technology Act (2011) incorporated measures to promote effective equality in academic institutions. This paper evaluates how Spanish evaluation agencies' compliance with implementing gender balance has affected the composition of evaluation committees and its impact on the advancement of women in science. Findings reveal some positive figures on women's representation in recent decades, even though gender-balanced committees do not show any clear evidence of causing this effect. There seems to be no correlation between gender-balanced committees and women's success rates, suggesting intermediate variables affect women's low participation in competitive submissions. It explores several factors concerning two agencies' evaluation procedures, such as formality and transparency, direct/multiple gatekeeping processes, the influence of epistemic cultures, cohorts and confidence of female candidates.

Griffioen, Didi (2020):

### Building Research Capacity in New Universities During Times of Academic Drift. Lecturers Professional Profiles.

In: *Higher Education Policy* 33 (2), S. 347–366. DOI: 10.1057/s41307-018-0091-y.

#### Abstract:

New universities on the European mainland were mostly teaching oriented until the start of this century. Current national and local management intends to better connect research and teaching through the increase in lecturers' research capacity, often defined through their master's degrees or PhDs. However, this strategy is complex due to the needed combination of didactical expertise, professional practise, and research competencies in lecturers' professional profiles, which are not captured by the notion of formal degrees. This study considers the professional profiles of new lecturers through a thematic analysis and a correlation analysis of tasks and competencies in job openings (N = 126). The findings show that two professional profiles underpin the hiring of new lecturers: the teaching lecturer and the research-active lecturer. These profiles do not imply a better connection between research and teaching. To reach this goal, higher education policy should explicitly define lecturers' professional profiles beyond their formal degrees.

Ha, Wei; Lu, Kelun; Wo, Bradley (2020):

### Do Chinese Government Foreign Student Scholarships Target Natural Resources in Africa?

In: *Higher Education Policy* 33 (3), S. 479–509. DOI: 10.1057/s41307-020-00195-w.

#### Abstract:

As China–Africa trade and investment have experienced exponential growth in recent years, there have been growing concerns about China's influence in Africa. Critics claim that China leverages its foreign aid to gain preferential access to Africa's abundant natural resources. Existing empirical research is hampered by the lack of official and authoritative data on China's development aid and by the endogeneity problem. This article examines the relationship between natural resource endowment and China's foreign aid through the lens of foreign student scholarships awarded by the Chinese government to African countries. We use new discoveries of oil, gas and mineral deposits in African countries, which are reasonably exogenous, to instrument for the quantity of natural resources in a two-stage least squares setup. We find that the amount of natural resources an African country possesses does not influence the number of government student scholarships they receive from China. The results are robust to different measures of Chinese access to natural resources in Africa. These findings cast doubts on the usual criticism against China's foreign aid in Africa.

Hladchenko, Myroslava; Dobbins, Michael; Jungblut, Jens (2020):

### Exploring Change and Stability in Ukrainian Higher Education and Research. A Historical Analysis Through Multiple Critical Junctures.

In: *Higher Education Policy* 33 (1), S. 111–133. DOI: 10.1057/s41307-018-0105-9.

*Abstract:*

This article examines shifts in the structures of Ukrainian higher education and research based on historical institutionalism with a focus on the dynamics of change and stability during critical junctures. We show how critical political junctures influence higher education, how institutions of higher education and research have experienced conversion and drift, and how international trends such as quality assurance and the concept of the research university have been implemented in Ukraine. We find that gradual institutional change (conversion) and deliberate non-change (drift) in a political environment characterized by widespread corruption have resulted in a high degree of diversion of both financial and intellectual resources. Due to a lack of political support for the implementation of reforms and rampant political favoritism, organizational forms frequently are mismatched with their core organizational tasks.

Horta, Hugo; Jung, Jisun; Santos, João M. (2020):

### Mobility and Research Performance of Academics in City-Based Higher Education Systems.

In: *Higher Education Policy* 33 (3), S. 437–458. DOI: 10.1057/s41307-019-00173-x.

*Abstract:*

This study assesses how four types of mobility, which are analysed simultaneously, are associated with the current research output quality and visibility of academics working in the city-based higher education systems of Hong Kong and Macau. Transnational educational mobility is associated with the academics' educational path, whilst intrasectoral job mobility, intersectoral job mobility and transnational job mobility are related to their professional careers. The research output, quality and visibility of academics are based on three indicators pertaining to the publications of these academics in international, peer-reviewed and indexed journals: the number of publications, the cumulative SCImago journal rank of these publications (which measures quality from an output perspective) and the citations obtained by these publications (which measures visibility). The results show that different mobilities have different effects on research output, quality and visibility, and that often these effects can be beneficial to one indicator but concurrently detrimental to another. Nested analyses of science, technology, engineering and mathematics (STEM) and non-STEM academics, and by sex, offer further insight into the associations of these mobilities with knowledge output and outcomes.

Huang, Cui; Wang, Shutao; Su, Jun; Zhao, Peiqiang (2020):

### A Social Network Analysis of Changes in China's Education Policy Information Transmission System (1978–2013).

In: *Higher Education Policy* 33 (2), S. 323–345. DOI: 10.1057/s41307-018-0096-6.

*Abstract:*

This study examines the evolution of China's education policy transmission system and analyzes its influencing factors. Data were collected from 5793 policy documents issued by the Chinese central government from 1978 to 2013. Using policy document bibliometrics and social network analysis, we studied the "citing-cited" policy reference relationship to undertake an in-depth characterization of the different stages of education policy and reform since China's economic reform and opening up in 1978. We determined changing trends in the education policy transmission system through using an environment-actors-institutions framework to uncover the factors behind such trends. Results showed that China's education policy transmission system has experienced a rapid expansion in the last few decades, and that characteristics are distinct from onetime period to another. Central governance ideologies had a relatively strong impact on the popular themes and topics of education policy in different stages. Meanwhile, the policy-issuing institutions played a significant role in the effectiveness of a certain policy measure. Additionally, the supervisory institution was an important factor that affected the degree of centrality in the evolving education policy network.

Jiang, Jin; Mok, Ka Ho; Shen, Wenqin (2020):

### Riding over the National and Global Disequilibria. International Learning and Academic Career Development of Chinese Ph.D. Returnees.

In: *Higher Education Policy* 33 (3), S. 531–554. DOI: 10.1057/s41307-019-00175-9.

*Abstract:*

In response to the growing pressure of globalization and intensified competition for global talent, the Chinese government has proactively invested in human capital by sending students abroad to pursue higher degrees through national scholarship programs. This article sets out against the context of raising concerns and even questions the value of the globalization and internationalization of higher education on graduate employment and professional development. It critically examines how the overseas doctoral study could affect the graduate employment of Ph.D. returnees in the academic job market. Drawing on a national survey on government-funded Chinese Ph.D. returnees, this article finds no significant “pure prestige” effect of returnees’ doctoral university independent of individual merits. Instead, pre-employment academic productivity plays an important role in determining Ph.D. returnees’ job placement in a top university in China. The present article offers a sociological perspective on how the Chinese government rides on the rising nationalism and the call for globalization through grooming Chinese students to become global talents before bringing them back for enhancing the country’s global competitiveness.

Jung, Jisun (2020):

### Master’s Education in Hong Kong. Access and Programme Diversity.

In: *Higher Education Policy* 33 (4), S. 711–733. DOI: 10.1057/s41307-020-00202-0.

*Abstract:*

This study aims to examine how master’s students’ profiles have changed over the past two decades in Hong Kong and how master’s programmes have diversified in terms of degree types and learning aims, and programme focuses used to achieve these aims. Using a case study approach, this study performed a document analysis of institutional statistics and university-published materials. In addition, a keyword analysis of the learning aims of 102 programmes was conducted. The results showed that the profiles of master’s students’ have changed, with an increasing number of female students, non-local students and full-time students, and in shorter work experience. Master’s programmes within the case institution were diversified based on a market-oriented approach; for instance, many spinoff programmes targeting students with different backgrounds were opened. On the other hand, the learning aims, and the programmes focuses employed to achieve these aims, were found to be rather standardised across degree types, with emphasis placed on the integration between theory and practice and on professional development. The research findings have implications for understanding the changing nature of master’s education in terms of student backgrounds and the focal points of teaching and learning.

Jung, Jisun (2020):

### Master’s Education in Massified, Internationalized, and Marketized East Asian Higher Education Systems.

In: *Higher Education Policy* 33 (4), S. 613–618. DOI: 10.1057/s41307-020-00215-9.

*Abstract:*

This special issue aims to address the topics on expanding master’s education and its current challenges in East Asia, focusing on China, Hong Kong, Japan, South Korea, and Taiwan. The special issue describes the historical backgrounds and key characteristics of master’s education and identifies new demands for master’s education in terms of employability and labour market outcomes. By doing so, it addresses major issues of current master’s education in selected East Asian higher education systems. Each article contains original research, based on historical and empirical approaches, that deepens our understanding of master’s education and reveals different contextual challenges in higher education, such as massification, internationalization, and marketization.

Kmiotek-Meier, Emilia; Karl, Ute; Powell, Justin J. W. (2020):

### Designing the (Most) Mobile University. The Centrality of International Student Mobility in Luxembourg’s Higher Education Policy Discourse.

In: *Higher Education Policy* 33 (1), S. 21–44. DOI: 10.1057/s41307-018-0118-4.

*Abstract:*

The nexus of national educational and migration policies and international student mobility (ISM) in Europe becomes strikingly visible in Luxembourg. ISM is central for higher education policy in Luxembourg, but also for larger questions of social integration and economic development. Based on a discourse analysis of the political debates surrounding the foundation of the University of Luxembourg in 2003, we analyse how and why ISM became a cornerstone of higher education policy in Luxembourg. Our findings reveal that, on the one hand, incoming student mobility — and the establishment of an international research university — was and is seen as a means of competing for the best and brightest, regionally and globally, and of securing human resources to satisfy a booming, internationalised labour market. On the other hand, outgoing student mobility has traditionally been viewed as the main mechanism to establish international networks across Europe and foster elites back home. Both incoming and outgoing student mobility are thought necessary to establish and maintain a competitive and sustainable knowledge economy. Reconstructing the underlying rationales behind the support for ISM as the key to higher education policy, we explain why Luxembourg currently has the highest proportion of ISM worldwide.

Larsen, Marianne A.; Tascón, Clara I. (2020):

### Social Capital in Higher Education Partnerships. A Case Study of the Canada-Cuba University Partnership.

In: *Higher Education Policy* 33 (1), S. 89–109. DOI: 10.1057/s41307-018-0100-1.

*Abstract:*

This article reports on the findings of a case study about the Canada–Cuba University Partnership (CCUP), a teaching, research, and service partnership between individuals associated with a Canadian and Cuban University. The research question guiding the study was: “How do the relationships among individuals in the CCUP shape the partnership?” Our review of the existing literature on higher education partnerships reveals the lack of literature focusing on the relationships among individual partnership members. Our study is framed by social capital as our theoretical approach and social network analysis as our methodological approach. These approaches enable us to map out the connections between and among individuals and show the importance of their relationships. We analyze the partnership focusing on social capital, highlighting the mutually beneficial activities and the role of central actors in the network who contributed to the formation of the partnership and the long-lasting relationships among academics in both countries. Relationships in the CCUP are characterized by mutuality, solidarity, and strong and thick ties. The argument we advance is that understanding the collaborative relationships among members of higher education partnerships and the productive capacities of those relationships through the enactment of social capital provides insights into how sustainable and successful partnerships work.

Lee, Jenny J.; Sehoole, Chika (2020):

### International Students Seeking Political Stability and Safety in South Africa.

In: *Higher Education Policy* 33 (2), S. 305–322. DOI: 10.1057/s41307-019-00171-z.

*Abstract:*

Given the increasing rate of South to South migration and South Africa’s leading role as a host for internally displaced migrants as well as Africa’s international students, this study examined this intersection of international students who selected the country for political stability and safety. The findings revealed that while these students were generally more highly prepared academically, more satisfied with university facilities and staff, and experienced fewer academic hurdles than their international student counterparts, they encountered greater challenges in regard to finances, living support and discrimination. The study calls for clearer acknowledgement in policy and specialized support for refugee and asylum seekers’ unique situations and needs.

Lee, Soo Jeung; Kim, Seungjung; Jung, Jisun (2020):

**The Effects of a Master's Degree on Wage and Job Satisfaction in Massified Higher Education. The Case of South Korea.**

In: *Higher Education Policy* 33 (4), S. 637–665. DOI: 10.1057/s41307-020-00200-2.

*Abstract:*

Despite the massive expansion of postgraduate education in many countries, few studies have been performed to examine the association between graduates possessing a master's degree and their labour market outcomes. We therefore used panel survey data from the 2011 to 2013 Graduates Occupational Mobility Survey to analyse the effects of master's degrees on wage levels and job satisfaction in South Korea, which has experienced a rapid expansion of postgraduate education. We found that master's degrees are, overall, associated negatively with wage levels, but positively with job satisfaction. These effects, however, differed by discipline, with a master's degree in a hard discipline being significantly associated with higher job satisfaction, but a master's degree in a soft discipline being significantly associated with lower wages. We interpreted these results in light of the economic and social contexts of higher education and the labour market for graduates in Korea. Our results have policy implications at the national and institutional levels in terms of qualification frameworks, curricula, employability and institutional support for career development, with consideration for differences between disciplines.

Li, Xiuhuan; Zhao, Guodong (2020):

**Democratic Involvement in Higher Education. A Study of Chinese Student E-participation in University Governance.**

In: *Higher Education Policy* 33 (1), S. 65–87. DOI: 10.1057/s41307-018-0094-8.

*Abstract:*

E-participation has become increasingly popular in many fields due to the widespread usage of the Internet. As an effective approach to e-democracy, e-participation provides more opportunities for college students to access university governance and facilitates democratic administration in higher education institutions. This study explores student e-participation in university governance in one university of China based on the social interaction model. The evaluation framework of student e-participation consists of three basic components: student engagement, interactions between students and the university, and university support. A mixed-method research was conducted to assess the current status of student e-participation in this university. The results show that the overall level of student e-participation, from the perspective of students, is low. We also analyzed some influential factors of students' engagement in e-participation. It is suggested that universities should actively respond to and provide support for student e-participation in university governance to improve the quality of administration and the relations between students and the university.

Liu, Xu (2020):

**The Development of Private Universities in Socialist China.**

In: *Higher Education Policy* 33 (1), S. 1–19. DOI: 10.1057/s41307-018-0114-8.

*Abstract:*

The emergence of private higher education (PHE) in China has resulted from the increasing demand from the public for higher education, and the requirements of private businesses in the socialist market economy. This paper examines the development of the PHE in China since 1949, and in particular the commencement of the Opening-up and Reform Policy for the period 1978–2018. Drawing from national documents and transcripts of interviews with senior managers, the paper explores the challenges PHE currently faces and the policies which have addressed the challenges especially in the last 10 years. It is suggested to improve the role of the university constitution in governance practices of the university.

Lopes, João; Ferreira, João J.; Farinha, Luís; Raposo, Mário (2020):

### Emerging Perspectives on Regional Academic Entrepreneurship.

In: *Higher Education Policy* 33 (2), S. 367–395. DOI: 10.1057/s41307-018-0099-3.

#### *Abstract:*

Academic entrepreneurship currently features as a leading topic in the field of entrepreneurship. This research study aims to carry out bibliometric analysis on this topic through recourse to cluster analysis. We carried out extensive search (1971–2017) of the Web of Science database that identified seven clusters in the literature: entrepreneurial universities, university–industry interactions, university–industry knowledge transfers, university–industry innovation networks, university entrepreneurship, university–industry industrial property and innovation ecosystems. This study reinforces the coherence and scientific structure of the existing literature and serves as a starting point for other studies on this field. We close with debate about the future research agenda for academic entrepreneurship.

Lozano, Josep M.; Bofarull, Ivan; Waddock, Sandra; Prat-i-Pubill, Queral (2020):

### Avoiding the Iron Cage of Business School Rankings.

In: *Higher Education Policy* 33 (1), S. 135–157. DOI: 10.1057/s41307-018-0107-7.

#### *Abstract:*

We argue that rankings force business schools to increasingly follow similar curricula and strategic approaches, creating a “iron cage” that influences the nature, quality, and pedagogies of what is taught, particularly for striving business schools that wish to join the ranks of highly rated ones. Following rankings pressures measures is particularly problematic for schools striving for top ratings, for non-accredited institutions, and for smaller, more teaching-oriented institutions who play what amounts to an unwinnable game because of the stability of rankings over time. There are other innovative approaches to managing rankings pressures beyond conforming, by seeking differentiation strategies.

Mewburn, Inger; Grant, Will J.; Suominen, Hanna; Kizimchuk, Stephanie (2020):

### A Machine Learning Analysis of the Non-academic Employment Opportunities for Ph.D. Graduates in Australia.

In: *Higher Education Policy* 33 (4), S. 799–813. DOI: 10.1057/s41307-018-0098-4.

#### *Abstract:*

Can Australia’s Ph.D. graduates be better utilised in the non-academic workforce? There has been a historic structural decline in the ability of Ph.D. graduates to find work within academia for the last couple of decades (Forsyth in *A history of the modern Australian University*, New South Press, Sydney, 2014). Around 60% of Ph.D. graduates in Australia, now find jobs outside the academy, and the number is growing year on year (McGagh et al. in *Securing Australia’s future: review of Australia’s research training system*, <https://acola.org.au/wp/PDF/SAF13/SAF13%20RTS%20report.pdf>, 2016). The Ph.D. is a degree designed in the early twentieth century to credential the academic workforce. How to make it fit contemporary needs, when many, if not most, graduates do not work in academia, is a question that must be addressed by higher education managers and policymakers. Progress has been slow, partly because of the lack of reliable data-driven evidence to inform this work. This paper puts forward a novel hybrid quantitative/qualitative approach to the problem of analysing Ph.D. employability. We report on a project using machine learning (ML) and natural language processing to perform a ‘big data’ analysis on the text content of non-academic job advertisements. This paper discusses the use of ML in this context and its future utility for researchers. Using these methods, we performed an analysis of the extent of demand for Ph.D. student skills and capabilities in the Australian employment market. We show how these new methods allow us to handle large, complex datasets, which are often left unexplored because of human labour costs. This analysis could be reproduced outside of the Australian context, given an equivalent dataset. We give an outline of our approach and discuss some of the advantages and limitations. This paper will be of interest for those involved in reshaping Ph.D. programs and anyone interested in exploring new ML methods to inform education policy work.



Mok, Ka Ho; Wang, Zhiqiang; Neubauer, Deane (2020):

### Contesting Globalisation and Implications for Higher Education in the Asia–Pacific Region. Challenges and Prospects.

In: *Higher Education Policy* 33 (3), S. 397–411. DOI: 10.1057/s41307-020-00197-8.

#### Abstract:

Setting out against the context of the rise of anti-globalism and the resurgence of nationalism, the first half of the article reviews and discusses the debates of anti-globalism and the resurgence of nationalism as well as their effects on educational development. The second half of the article provides the overview of the special issue. More specially, it will highlight the major arguments presented by the contributors, who are experts in higher education policy and governance studies. The arguments particularly examine how the governments in the Asia–Pacific region have promoted nationalism, on the one hand, and globalisation, on the other hand. Next, we review how nationalism has resurged in higher education policy debates where globalisation is widely contested in the region.

Mulvey, Benjamin (2020):

### International Higher Education and Public Diplomacy. A Case Study of Ugandan Graduates from Chinese Universities.

In: *Higher Education Policy* 33 (3), S. 459–477. DOI: 10.1057/s41307-019-00174-w.

#### Abstract:

The number of international students studying in Chinese universities has expanded rapidly in recent years, and this expansion is undergirded by a public diplomacy rationale. However, there is a lack of research which seeks to understand how graduates of Chinese universities may be contributing to Chinese foreign policy goals in specific contexts. This article presents a case study which explores the experiences of international study, resulting attitudinal changes, and post-graduation trajectories of a group of Ugandan graduates from Chinese universities. The findings underscore issues with the assumptions around how international higher education provision contributes to public diplomacy. The evidence from the case study highlights the previously neglected relevance of students' agency and decision-making to the process of soft power accumulation. The participants in this study expressed ambivalence towards study experiences and Chinese foreign policy, but still chose to engage with China post-graduation, as doing so represented an opportunity to leverage knowledge of Chinese language and culture in the Ugandan labour market. This also highlights the how students' agentic decision-making is related to global geopolitical competition, and the nature of the bilateral relations between host and sending nations.

Quinn, Bríd (2020):

### Reformation or Transformation? Policy Reform in Ireland's Higher Education System.

In: *Higher Education Policy* 33 (1), S. 159–177. DOI: 10.1057/s41307-018-0108-6.

#### Abstract:

Recent developments in policy analysis promote the use of blended or fused frameworks in order to capture the complexity of contemporary policy processes. Such an approach is particularly relevant to the complex higher education policy sphere. Having identified the appropriateness and conceptual and practical utility of such models, this article proposes a model linking the streams, stages and AFC approaches in an institutional frame. The framework is then applied in an analysis of higher education policy reform during the last 20 years in Ireland. The article pinpoints the benefits and challenges of creating and applying such frameworks of analysis and highlights their relevance to the education sector and their potential for the policy studies community.

Rymarzak, Małgorzata; Marmot, Alexi (2020):

### Higher Education Estate Data Accountability. The Contrasting Experience of UK and Poland.

In: *Higher Education Policy* 33 (1), S. 179–194. DOI: 10.1057/s41307-018-0109-5.

*Abstract:*

Higher education estates are large and valuable assets that affect diverse stakeholders. Despite recent growth, data on university estates has received little concerted attention from national and international statistics bodies. This paper examines and contrasts the evolution of universities and their estates in the UK and Poland, in the light of the degree of central government control versus institutional autonomy. Given increased international competition for students, staff and research funding, the paper argues that universities and their stakeholders would benefit from more transparency, the development of an agreed set of estate definitions, standards and regular statistical reports. Data based on agreed standards would provide a basis for comparative analysis and help to run better university estates and facilities, thereby enhancing HEI efficiency, effectiveness and environmental sustainability.

Saiti, Anna; Chletsos, Michael (2020):

### Opportunities and Barriers in Higher Education for Young Refugees in Greece.

In: *Higher Education Policy* 33 (2), S. 287–304. DOI: 10.1057/s41307-020-00180-3.

*Abstract:*

Over the last decade, Greece has been the dominant receiver of large waves of both migrants and refugees. Taking into consideration that (a) immigration (and the displacement of people from their homes in general) is a social phenomenon, (b) education has a significant influence on the development process and access to education is absolutely a fundamental human right, (c) real development calls for improved educational opportunities and access for all citizens without any discrimination, and (d) the lives of young refugees have been impacted by negative experiences, then the purpose of this paper is to investigate, through qualitative analysis, the access and the opportunities that the Greek higher education system offers to young refugees (if they wish to enter) and to identify possible barriers raised by existing educational policy. A qualitative survey was conducted by analysing the relevant Greek legislative framework and by using structured interviews with key personnel of refugee support organizations and higher education institutions (HEIs), both public and private. This study supports the view that higher education should aim to remove any barriers to accessibility, have a humanitarian orientation, ensure equality and constitute a key step in the whole process of socialization.

Sanders, Justin S. (2020):

### Comprehensive Internationalization in the Pursuit of ‘World-Class’ Status. A Cross-Case Analysis of Singapore’s Two Flagship Universities.

In: *Higher Education Policy* 33 (4), S. 753–775. DOI: 10.1057/s41307-018-0117-5.

*Abstract:*

This paper uses John Hudzik’s (2015) Comprehensive Internationalization as a conceptual framework to examine how two Singaporean universities, the National University of Singapore (NUS) and Nanyang Technological University (NTU), leverage internationalization as a means to achieving ‘world-class’ status. Document analysis, semi-structured interviews and campus observations are used to provide a cross-case analysis of the universities’ strategies related to partnerships, student and staff mobility, and internationalization of the curriculum. This analysis is placed against the backdrop of wider state policy to explore the relationship between institutional approach and national context. Overall, the findings suggest that a global frame of reference is embedded in the two universities’ visions, and internationalization activities are aggressively pursued to achieve those visions. Factors related to each university’s approach to comprehensive internationalization are explored in the discussion section.

Shimauchi, Sae; Kim, Yangson (2020):

### The Influence of Internationalization Policy on Master’s Education in Japan. A Comparison of “Super Global” and Mass-Market Universities.

In: *Higher Education Policy* 33 (4), S. 689–709. DOI: 10.1057/s41307-020-00204-y.

*Abstract:*

This study explores the dynamics of master's education in Japan resulting from various internationalization policies through a comparison of master's degree programs offered by Japan's "Super Global Universities (SGUs)" and the country's mass-market universities. Using case studies and interviews, the impact of internationalization policy and other external factors on the ecology of master's programs is examined, and the way in which the master's programs in these two different types of universities have reacted is analyzed. Although a common pattern of increases in the number of international students enrolled in these master's programs was observed, responses to the internationalization policies and external environmental changes were found to be diverse. Based on the study's findings, specific, targeted policies rather than broad generic policies aimed at promoting the internationalization of master's education in Japan are needed. The recruitment of qualified students and a balance of Japanese and international students in master's education is seen as a key to effectively implementing internationalization.

Song, Jia (2020):

**Strategic Responses to Teaching Quality Accountability. A Case Study of a Regional University in China from a Decoupling Perspective.**

In: *Higher Education Policy* 33 (3), S. 591–609. DOI: 10.1057/s41307-018-0113-9.

*Abstract:*

In order to improve the quality of undergraduate teaching, the Chinese government has been implementing a scheme of institutional accountability in a bid to ensure the adequacy of university quality assurance measures. This study employed a qualitative method to explore the responses of administrative personnel and the perceptions of academics at a local comprehensive university, which has recently experienced a new round of external review mechanisms. Through in-depth interviews conducted with 23 staff members from four units, we found the university had adopted flexible strategies to respond to the external pressures. The reasons can be categorized under five 'C's: the Cause of the institutional review, the Constituents for the university and academics, accountability Control measures, the Content of the external review and the Context of this particular university.

Stensaker, Bjørn; Frølich, Nicoline; Aamodt, Per Olaf (2020):

**Policy, Perceptions, and Practice. A Study of Educational Leadership and Their Balancing of Expectations and Interests at Micro-level.**

In: *Higher Education Policy* 33 (4), S. 735–752. DOI: 10.1057/s41307-018-0115-7.

*Abstract:*

As international and domestic policy initiatives continue to sweep over higher education, it is of utmost importance to study how those responsible for the implementation of the many initiatives taken perceive and respond to the many expectations about change and renewal. Through three different analytical perspectives — a managerial, a disciplinary, and a stakeholder perspective — the current article offers insights into how educational leaders responsible for the management of study programmes at micro-level interpret external expectations and how they prioritize between them. Based on data derived from a representative sample of Norwegian educational leaders, the current article finds — somewhat surprisingly — that the managerial perspective is less relevant for understanding the sense-making of educational leaders and how they prioritize between different tasks in their daily work. Disciplinary and the stakeholder perspectives are in this respect more relevant for explaining the practices related to programme management. The study provides indications of a (continued) gap between macro-level policy-making and its implementation at micro-level. In the conclusion, the findings are reflected upon and implications for policy and practice are outlined.

Streitwieser, Bernhard; Duffy Jaeger, Kathryn; Roche, Jane (2020):

**Included yet Excluded. The Higher Education Paradox for Resettled Refugees in the USA.**

In: *Higher Education Policy* 33 (2), S. 203–221. DOI: 10.1057/s41307-020-00183-0.

*Abstract:*

Today, more than 70 million people globally are classified as displaced and another 25.4 million are classified as refugees. Among refugee populations, only 3% will access higher education (UNHCR in Tertiary education, 2020. <https://www.unhcr.org/en-us/tertiary-education.html>). Those left behind include the resettled refugee population in the USA, who are simultaneously included and excluded from higher education (AACRAO in Supporting Syrian refugee access to US higher education, 2016. <https://www.aacrao.org/resources/newsletters-blogs/aacrao-connect/article/supporting-syrian-refugee-access-to-u-s-higher-education>). This paper argues that while many higher education institution (HEI) initiatives do address this issue, a lack of awareness and absence of a standardized protocol itemizing the specific needs of this population further excludes them from accessing and succeeding in higher education. This paper first outlines the specific needs of resettled refugee students and the barriers they face trying to access higher education. Second, it examines how HEIs in the USA have worked to promote the access, inclusion, and success in higher education of refugee students who have already been resettled in the USA. Third, it provides policy recommendations for additional support mechanisms that should be considered for students from refugee backgrounds. The findings, conceptualized within a capabilities and social justice perspective, indicate that initiatives established by HEIs with external partners have the potential to provide access channels for resettled refugees to enter tertiary education.

Unangst, Lisa; Wit, Hans de (2020):

### Non-profit Organizations, Collaborations, and Displaced Student Support in Canada and the USA. A Comparative Case Study.

In: *Higher Education Policy* 33 (2), S. 223–242. DOI: 10.1057/s41307-020-00182-1.

*Abstract:*

Refugee students are supported not only by federal, state, and local government bodies in receiving countries, but also by non-profit organizations. This paper offers a comparative case study of two such entities located in Canada and the USA: World Education Services (WES) and the Massachusetts Immigrant and Refugee Advocacy Coalition (MIRA). We emphasize possibilities for scaling the work of WES and MIRA in the context of the neoliberal environments within which they operate, as well as the role of national and state policy in guiding organizational priorities. We frame our analysis with the transformative paradigm suggested by Hurtado (in: Martínez Alemán et al. (eds) *Critical approaches to the study of higher education: a practical introduction*, Johns Hopkins University Press, Baltimore, 2015), offering a direct link to practice in an effort to improve student experience in the immediate term. We discuss the need for flexible funding, advocacy efforts, and possible avenues for better information sharing among non-profits as well as by the government actors and universities that are frequent collaborators.

Xiong, Weiyan; Mok, Ka Ho (2020):

### Critical Reflections on Mainland China and Taiwan Overseas Returnees' Job Searches and Career Development Experiences in the Rising Trend of Anti-globalisation.

In: *Higher Education Policy* 33 (3), S. 413–436. DOI: 10.1057/s41307-020-00185-y.

*Abstract:*

In the last few decades, the growth of gross enrolment ratios in higher education in the Asia and Pacific region reveals an increasing level of economic, social and political confidence within the region. The consistent and enhanced performances of higher education systems in Singapore, South Korea, Hong Kong, Mainland China, Malaysia and Taiwan are revealed clearly by different global university league tables, such as QS, Times Higher Education and Shanghai Jiao Tong University Ranking. Many governments in Asia believe investing in higher education would enhance their national competitiveness in the global marketplace. Therefore, different public policy measures have been adopted to engage not only the public sector but also the private sector to create more higher education opportunities, which has resulted in the massification of higher education. With a strong belief that higher education investments would bring good returns to both individuals and the nation, governments and families, individuals in Mainland China and Taiwan have followed the similar trends outlined above. An increasing number of individuals have sought education overseas with the confidence that it would bring them positive returns and enhance their job search and career developments after they have obtained degrees from foreign universities. This article sets out against this sociopolitical context to conduct a critical examination of how students from Mainland China and Taiwan who have graduated from UK universities evaluate the effects of overseas studies on their job search and career development. More specifically, this article reflects critically upon the value of international learning

against the growing wave of anti-globalism and heated debates that question the value of the internationalisation of higher education.

Yang, Cheng-Cheng; Chan, Sheng-Ju (2020):

### Massified Master's Education in Taiwan. A Credential Game?

In: *Higher Education Policy* 33 (4), S. 619–635. DOI: 10.1057/s41307-020-00213-x.

#### Abstract:

Master's education in Taiwan has been significantly transformed since the 1990s in an effort to cope with the knowledge-based economy and the growing demand for greater innovation. In such a context, this study examined how the expansion process of master's education in Taiwan has impacted the labour market and employment opportunities over the past two decades through the lenses of credentialism and signalling theory. Adopting a longitudinal analysis, this study employed authoritative databases from 1995 to 2018, analysing the impacts of massification. Our empirical findings confirm that credential inflation is not obvious, while the signalling effect for a master's degree remains stable, despite a slight decline since 2010. However, pursuing higher credentials (i.e. a master's or even doctoral degree) is inevitable, as youth must maintain their market value through higher credentials. Furthermore, the massified master's education sector brings serious challenges to educational equality and social mobility among different social groups. Disadvantaged students are the most vulnerable group in pursuit of this higher positional good at the societal level.

Yang, Jiale; Shen, Wenqin (2020):

### Master's Education in STEM Fields in China. Does Gender Matter?

In: *Higher Education Policy* 33 (4), S. 667–688. DOI: 10.1057/s41307-020-00203-z.

#### Abstract:

This study aims to reveal gender and gender-matching effects in STEM master's education in China by using the data of a nationwide survey. Research findings indicated the gender matching between master's students and their advisors played an important role during students' socialization. Female students were more satisfied with advisors of the same gender in mathematics and civil engineering. Female students supervised by a male advisor reported less research productivity compared with those supervised by the same gender in mathematics. In terms of gender effects, female respondents participated in fewer research projects and less likely to pursue a doctorate after graduation. There was no significant gender difference in academic publication. Moreover, the socialization among female students showed different patterns across STEM subfields. The paper also highlights the policy implication to recruit and retain female faculty members as role models in STEM fields.

## Specials

Dill, David D. (2020):

### Correction to: Enhancing Academic Quality and Collegial Control: Insights from US Policy on the Ethical Conduct of Human Subjects' Research, <https://doi.org/10.1057/s41307-018-0093-9>.

[Correction]. In: *Higher Education Policy* 33 (3), S. 1. DOI: 10.1057/s41307-018-0097-5.

#### Abstract:

In the last sentence of the first Conclusion paragraph "micro-regulatory" should be "meta-regulatory". The correct sentence thus is:

This suggests the potential value of a similarly designed meta-regulatory approach to national QA policies, which focuses on reforming and strengthening each university's collegial processes for assuring the quality of teaching and student learning.

# Higher Education Quarterly (74) 2020

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## Editorials

Agasisti, Tommaso (2020):

Editorial May 29th, 2020.

[Editorial]. In: *Higher Education Quarterly* 74 (3), S. 221–223. DOI: 10.1111/hequ.12268.

Fumasoli, Tatiana (2020):

Leadership of higher education.

[Editorial]. In: *Higher Education Quarterly* 74 (4), S. 349–352. DOI: 10.1111/hequ.12283.

Gibbs, Paul (2020):

Editorial.

[Editorial]. In: *Higher Education Quarterly* 74 (1), S. 3–4. DOI: 10.1111/hequ.12247.

Kosmützky, Anna; Nokkala, Terhi (2020):

Towards a methodology discourse in comparative higher education.

[Editorial]. In: *Higher Education Quarterly* 74 (2), S. 117–123. DOI: 10.1111/hequ.12257.

## Original Articles

Alemayehu, Binyam Zewde; Woldemariam, Getahun Kelemework (2020):

Academic staff flight from Ethiopian public universities. Causes and possible solutions.

In: *Higher Education Quarterly* 74 (4), S. 497–515. DOI: 10.1111/hequ.12241.

*Abstract:*

We have fair level of understanding about the cost of high employee turnover; however, our knowledge regarding how employers adjust themselves to counter the problem is very much limited, particularly in developing countries like Ethiopia. Hence, this study was conducted with the purpose of throwing a light on the uncharted part of employee retention in Ethiopian higher education. The study identifies determinants of academic staff retention by employing a mix of descriptive statistics, factor analysis and multiple regression techniques. A sample of 380 active academic staff was selected from three

major public universities. Besides, unstructured interview was conducted with 15 lecturers who had left their respective universities. The result indicates that academic staff willingness to stay in their current institution is contingent on leader's qualities in building an environment that guarantees participation and fosters concern for followers, availability of a reward system that is competitive and fair, a range of benefit packages, prevalence of fair human resource policies and practices, and perceived attractiveness of cities/towns where the institutions are located. The study explains the limitations of the ongoing attempts aimed at retaining the academics and highlights actions that must be taken to improve employee retention.

Antonowicz, Dominik; Kulczycki, Emanuel; Budzanowska, Anna (2020):

### Breaking the deadlock of mistrust? A participative model of the structural reforms in higher education in Poland.

In: *Higher Education Quarterly* 74 (4), S. 391–409. DOI: 10.1111/hequ.12254.

#### Abstract:

Polish higher education provides a particular example of a system that, until very recently, has been largely reform-resistant as it has a long-standing tradition of bottom-up 'academic self-governance' at both the system and the institutional levels. This article explores the process of the structural reforms of the higher education system, commonly known as 'Law 2.0' (the original term being 'Ustawa 2.0') which proceeded between 2016 and 2018. By doing so, it examines in detail the process of policy formation that has been often advertised as a 'reform different than others' due to paying special attention to mechanisms of engaging various stakeholders (mostly internal) and an intellectual contribution from the academic community. This study is conceptual by nature but empirically focused. The paper claims that the major reasons for failure were a radical shift in policy process and a departure from the well-entrenched patterns of policy formation and the highly politically sensitive nature of the content of the reform.

Aymans, Stephanie C.; Kortsch, Timo; Kauffeld, Simone (2020):

### Gender and career optimism. The effects of gender-specific perceptions of lecturer support, career barriers and self-efficacy on career optimism.

In: *Higher Education Quarterly* 74 (3), S. 273–289. DOI: 10.1111/hequ.12238.

#### Abstract:

Female university graduates tend to have less career success than their male counterparts. Career optimism is considered a crucial predictor of future career success, but little is known about predictors of career optimism. Based on Social Cognitive Career Theory (SCCT), we hypothesised that both perceived lecturer support and perceived career barriers impact career optimism via students' self-efficacy, and differentiated the model along gender lines using a subgroup path analysis. Two hundred and thirty-two undergraduate psychology students from German universities answered an online questionnaire. Results revealed that the expected indirect effect of perceived lecturer support and perceived career barriers on career optimism via self-efficacy was only identifiable in women. For men, we found a direct connection between perceived lecturer support and career optimism, as well as that an increase in perceived career barriers reduced males' self-efficacy. We were unable to identify any sex differences in career optimism.

Barnett, Ronald (2020):

### Towards the creative university. Five forms of creativity and beyond.

In: *Higher Education Quarterly* 74 (1), S. 5–18. DOI: 10.1111/hequ.12231.

#### Abstract:

The Creative University is susceptible to multiple interpretations which are moving in a fluid conceptual space. This conceptual openness can be adequately understood only as a set of discursive formations that reflect underlying societal changes. It is becoming a commonplace to suggest that creativity should no longer be seen as a matter of heroic individuals at work, for creativity is always a networked matter, but that reflection has to be widened to encompass a sense of

underlying shifting societal forces, with the economy central stage and hence the emergence of the hybrid idea of the creative economy. Qua institution, the creative university sits uneasily between discourses of economicism and societal flourishing. The creative university, accordingly, has to be seen in this milieu, which is steering the university but which also is affording it new possibilities for creativity. Five levels of creativity are identified that serve as domains in which these forces and affordances coexist. One such level, university reflexive creativity, is singled out as the most significant of the five. The creative university, it follows, unfolds as sets of interactions between individuals, institutional structures and corporate agency. Even as the constraints multiply, so too ever-wider possibilities for the creative university may be opening.

Baroudi, Sandra; David, Solomon Arulraj (2020):

Nurturing female leadership skills through peer mentoring role. A study among undergraduate students in the United Arab Emirates.

In: *Higher Education Quarterly* 74 (4), S. 458–474. DOI: 10.1111/hequ.12249.

*Abstract:*

Nurturing students' leadership is a crucial element in the twenty-first century due to its effects on their personal growth, well-being and self-awareness. Peer mentoring programmes promoted students' confidence levels and provided leadership development opportunities for them. The majority of peer mentoring studies often looked into the positive outcomes of mentoring on mentees rather than on mentors. Through semi-structured interviews, this study sought to explore the impact of peer mentoring role on female mentors' personal development and leadership practices in one university in the United Arab Emirates. Most participants viewed the mentoring role as the driving force behind their improved academic, personal development and career-related skills. The peer mentoring experience offered a great personal and psychosocial support to female mentors. Involvement in peer mentoring enhanced mentors' well-being and their attachment to their learning environment. Mentors' professionalism and sense of responsibility grew, and they gained experiences and skills that may help them in their future career. This study aimed to inspire female students to be future leaders who can positively contribute to their communities. It strengthened arguments for implementing peer mentoring programmes in universities.

Beattie, Liana (2020):

Educational leadership. Producing docile bodies? A Foucauldian perspective on Higher Education.

In: *Higher Education Quarterly* 74 (1), S. 98–110. DOI: 10.1111/hequ.12218.

*Abstract:*

The aim of this paper is to contribute to a long-standing critical tradition in the educational leadership literature through an analytical examination of the idiosyncrasies of leadership in Higher Education institutions (based on the UK example). It applies a postmodern way of thinking to the educational leadership phenomenon to problematise and challenge the traditional views on the trajectories of power in Higher Education institutions, utilising Foucault's key theoretical units of discipline, governmentality and biopolitics as a toolbox for dissecting the implications of neoliberal ideology on the leadership praxes. Significantly, the paper demonstrates how the engagement with Foucault's three modes of objectification—dividing practices, scientific classification and self-subjection—can expose the ways, in which the roles of educational leaders become re-configured into economic-rational individuals or subjects, who are compliant with the imposed requisites of the government's neoliberal agendas. The paper concludes that Foucault's theoretical perspectives could be used as a methodological template for a deeper critical analysis of leadership practices, equipping academics with additional tools for critiquing the existing boundaries of neoliberalism and intervening in the transformation of the social order by undertaking an investigation into the practices of governmentality, as suggested by Foucault.

Bland, Becca; Blake, Lucy (2020):

The difficulty in evidencing family estrangement to attain statutory finance in UK Higher Education.



In: *Higher Education Quarterly* 74 (4), S. 531–542. DOI: 10.1111/hequ.12232.

**Abstract:**

Acquiring statutory funding to study in Higher Education brings complex difficulties for UK students under the age of 25 who are estranged from their family, but have not been part of the care system. This paper explores the experiences of 564 estranged students and their experiences of providing evidence of family estrangement in order to access statutory student financial support. It finds that those who disclosed their family estrangement to a professional found it easier to access statutory student finance. However, the stigma around family estrangement was a barrier to disclosure as participants felt shame and humiliation when approaching a professional to support their application. These difficulties led to substantial delays in receiving statutory finance for estranged students which subsequently had an impact on their retention and equitable student experience at the beginning of the academic year. The paper concludes with key recommendations for improvements to the process of proving family estrangement. It will question the parental means-testing system itself, outlining key disadvantages for students experiencing family disruption.

Cantwell, Brendan (2020):

### Explanatory accounts in international and comparative higher education research.

In: *Higher Education Quarterly* 74 (2), S. 149–161. DOI: 10.1111/hequ.12246.

**Abstract:**

Developing plausible explanations rooted in theory and supported by evidence is a challenge for comparative higher education studies. The purpose of this article is to consider how comparative studies in higher education might develop accounts that allow the research community to enhance explanatory power. Higher education studies can advance explanations about what is happening and why, as well as interpret the meaning of occurrences by drawing broadly on realist scholarly traditions. Rather than prioritising a methodology, the field should prioritise essential questions and address them with all appropriate empirical tools. Avenues for explanatory research include bounded case studies, multi-method investigations into specific phenomena, mechanism-based approaches and macro-social analysis.

Carrillo-Durán, María-Victoria; García García, María (2020):

### Exploring the need for stakeholders' engagement through social networking sites to build the reputation of higher education organisations.

In: *Higher Education Quarterly* 74 (4), S. 442–457. DOI: 10.1111/hequ.12256.

**Abstract:**

This article addresses the current situation regarding the reputation of higher education organisations (HEOs) within the setting of social networking sites (SNSs). First, the recent literature contained in the Web of Science database will be deconstructed, in order to explain the key concepts as well as the relationship that exists between corporate reputation, engagement and SNSs. Second, the basis for management of reputation on SNSs will be analysed in terms of strategic communication. Finally, the article will include the implications for HEOs' management of reputation through social media. The essence of this work is that the use of SNSs does not necessarily contribute to the construction of positive reputation if this is not coupled with a focus on strategic communication, which carries with it the necessary levels of engagement with all stakeholders and in all institutional dimensions, in order to fulfil certain concrete objectives. HEOs can make use of various SNSs to build reputation if they assume the management of engagement levels with all stakeholders (not only students) and in each of their established areas. An institution's level of success on SNSs will depend on its ability to obtain the necessary level of engagement, according to each institution's particular attributes and in each specific case.

Cha, Jae Hyuk; Lee, Jungmin; Kim, Taehee; Chang, Kyungro (2020):

### Value of college athletic programmes in the Korean Higher Education. A contingent valuation study.

In: *Higher Education Quarterly* 74 (3), S. 320–333. DOI: 10.1111/hequ.12223.

*Abstract:*

Higher Education institutions in Korea are undergoing restructuring in response to the government reform policy. As one aspect of the restructuring, many colleges are reducing or abolishing the athletic programmes. This study investigated the value of athletic programmes for college students by using the contingent valuation method. The results of a multivariate survival analysis with a convenience sample of 372 undergraduate students indicate that the monetary value of the willingness of a student to pay for athletic programmes was about KRW 116,000 per semester. Students' level of involvement with and knowledge about intercollegiate athletics, as well as monthly allowance and year in college have positive effects on willingness to pay for athletic programmes.

Fam, Dena; Clarke, Elizabeth; Freeth, Rebecca; Derwort, Pim; Klaniecki, Kathleen; Kater-Wettstädt, Lydia et al. (2020):

Interdisciplinary and transdisciplinary research and practice. Balancing expectations of the 'old' academy with the future model of universities as 'problem solvers'.

In: *Higher Education Quarterly* 74 (1), S. 19–34. DOI: 10.1111/hequ.12225.

*Abstract:*

Academics are increasingly required to balance the expectations of the 'old' academy with a future model of universities as interdisciplinary and transdisciplinary 'problem solvers'. This paper highlights changing expectations of academics in producing alternative research outcomes in collaborative, practice-based research. Through a series of workshops with 20 researchers, preferred research outcomes and tensions in achieving these outcomes were identified. The tensions identified are presented as three dichotomies comprising the tension between: (a) 'I versus We' - individual versus team expectations & outcomes. (b) Disciplinary outcomes versus inter-/transdisciplinary outcomes. (c) Learning versus research objectives for the students and academics involved. These tensions reflect the authors' experiences of working in three international sustainability projects, drawing on lessons learned from these projects, with recommendations for universities seeking to implement interdisciplinary and transdisciplinary doctoral and postdoctoral programmes. Recommendations include the need for formal and informal leadership models, strong communication skills, empathy and willingness to learn from each other. A need for more systemic changes within university administration to better reward and value the breadth and depth of collaborative work, while facilitating open learning cultures and practice-oriented learning opportunities and curricula across faculties was also identified.

Fiset, John; Saffie-Robertson, Maria Carolina (2020):

The impact of gender and perceived academic supervisory support on new faculty negotiation success.

In: *Higher Education Quarterly* 74 (3), S. 240–256. DOI: 10.1111/hequ.12234.

*Abstract:*

The successful negotiation of one's first academic appointment contract can have lasting implications for academics and institutions alike. The present study investigated the impact of gender and perceived academic supervisor support (PASS) on negotiation outcomes using a sample of recently appointed assistant professors of management from internationally accredited business schools. Overall, women were less likely to engage in negotiations and were less effective than their male counterparts when bargaining for elements that revolved around direct compensation (e.g., salary, research funding). Further, it was observed that PASS moderated the relationship between gender and negotiation effectiveness such that highly supportive academic supervisors improved negotiation effectiveness for women, but had little impact for men. We conclude by outlining important practical implications of the current study and outline how interventions aimed at improving supervisor support in doctoral programmes may attenuate some of the observed negotiation discrepancies.

Fulford, Amanda (2020):

Contracting with students. Re-thinking Higher Education as invitation to treat.

In: *Higher Education Quarterly* 74 (1), S. 63–74. DOI: 10.1111/hequ.12222.

*Abstract:*

This paper takes as its starting point the idea of universities contracting with students, and of the increased consumer protections for students that such contracts afford. It begins by considering what is at stake in creating a legally binding contract. Using examples from contract law, it then argues that it is difficult to think of a university Higher Education in such terms. While contracts in relation to matters such as campus accommodation offer benefits and protections for both parties, contracting with students over their educational experience is highly problematic because of the precise stipulation of terms that is required. The paper seeks to understand what is distinctive about a Higher Education experience through a concept from contract law known as an invitation to treat. The paper argues that the notions of invitation and negotiation that are at its heart better illustrate the possibilities that a Higher Education afford.

Guidetti, Gloria; Viotti, Sara; Converso, Daniela (2020):

The interplay between work engagement, workaholism, emotional exhaustion and job satisfaction in academics. A person-centred approach to the study of occupational well-being and its relations with job hindrances and job challenges in an Italian university.

In: *Higher Education Quarterly* 74 (3), S. 224–239. DOI: 10.1111/hequ.12239.

*Abstract:*

The aim of this study was to analyse the occupational well-being of academics by using a person-centred approach. Data was collected by an online self-report questionnaire involving the academic population of a large Italian university. Cluster analysis showed the presence of four significantly different clusters, that were labelled engaged-satisfied, engaged-workaholic, exhausted-workaholic and detached. Multivariate analysis of variances showed significant differences between clusters regarding well-being dimensions, and the perception of work demand on academics as sources of hindrance or challenge. The findings of this study suggested, for the first time, the existence of a well-being typology within the academic context, considering aspects, such as workaholism, that have been rarely taken into account. Moreover, it has been shown that the well-being profile can influence the way in which academics perceived academic work demands, highlighting the potentialities of analysing well-being profile in order to identify employees who are more or less at risk.

Haeruddin, M. Ikhwan Maulana; Pick, David; Thein, Htwe Htwe (2020):

Resistance and compliance in women's academic identity work in the Global South.

In: *Higher Education Quarterly* 74 (3), S. 257–272. DOI: 10.1111/hequ.12204.

*Abstract:*

The aim of this study is to explore women academic's identity work in the context of the Global South (Indonesia). This is done by examining how the interplay between macro-level social, cultural and political influences and micro-processes produce moments of compliance and resistance. To this end, the following research question is posed: What is the nature of identity work among women academics in higher education institutions of the Global South where there are shifting and conflicting social and cultural conditions? This study contributes by illuminating the ways in which women comply with or resist traditional and contemporary organisational and occupational structures that produce gender inequality. It also contributes to understanding how the interplay of power and resistance influences women's academic identity work in developing nations.

Kosmützky, Anna; Nokkala, Terhi; Diogo, Sara (2020):

Between context and comparability. Exploring new solutions for a familiar methodological challenge in qualitative comparative research.

In: *Higher Education Quarterly* 74 (2), S. 176–192. DOI: 10.1111/hequ.12255.

*Abstract:*

Finding the balance between adequately describing the uniqueness of the context of studied phenomena and maintaining sufficient common ground for comparability and analytical generalisation has widely been recognised as a key challenge in international comparative research. Methodological reflections on how to adequately cover context and comparability have extensively been discussed for quantitative survey or secondary data research. In addition, most recently, promising methodological considerations for qualitative comparative research have been suggested in comparative fields related to higher education. The article's aim is to connect this discussion to comparative higher education research. Thus, the article discusses recent advancements in the methodology of qualitative international comparative research, connects them to older analytical methods that have been used within the field in the 1960s and 1970s, and demonstrates their analytical value based on their application to a qualitative small-N case study on research groups in diverse organisational contexts in three country contexts.

Lee, Hyeon Woo; Lee, Hye Yeon; Kim, Eun Jin (2020):

An analysis of the trends of undergraduates' academic achievement based on their admissions type in Korea.

In: *Higher Education Quarterly* 74 (1), S. 48–62. DOI: 10.1111/hequ.12233.

*Abstract:*

This study investigates the establishment and benefits of the comprehensive admissions type recently introduced into Korean universities. We analyse undergraduate students' academic achievement and career readiness across three different admissions types in a medium-sized university: rolling, comprehensive and regular. First, a series of mixed ANOVAs examined longitudinal changes for academic achievement and a set of ANOVAs found differences for academic achievement, within each semester. Specifically, students admitted via comprehensive admissions were found to have grade point averages (GPAs) similar to students admitted via regular admissions. Second, two-way MANOVA examined students' career readiness by admissions type and academic standing. Students admitted through comprehensive admissions were found to exhibit a higher level of career readiness across academic years. The implications for admissions types in Higher Education are discussed.

Lo, Man Fung; Tian, Feng (2020):

Enhancing competitive advantage in Hong Kong higher education. Linking knowledge sharing, absorptive capacity and innovation capability.

In: *Higher Education Quarterly* 74 (4), S. 426–441. DOI: 10.1111/hequ.12244.

*Abstract:*

This study aims to investigate the relationship between knowledge sharing, absorptive capacity, innovation capability and competitive advantage in Hong Kong Higher Education Industry. A theoretical framework was developed to examine the relationship between knowledge sharing and competitive advantage, mediated by absorptive capacity and innovation capability. A questionnaire was used to survey a randomly selected sample of academics from higher education institutions in Hong Kong. A total of 166 usable responses were received and analysed. PLS-SEM was utilised to test the hypotheses in the theoretical model. The result exhibits that significant positive relationships were identified between knowledge sharing and absorptive capacity, between absorptive capacity and innovation capability and between innovation capability and competitive advantage. Practically, senior management from higher education institutions should develop strategic measures, especially on knowledge sharing, absorptive capacity and innovation capability, in order to gain competitive advantage. Policymakers could also develop policies to facilitate knowledge sharing among local and regional higher education institutions. This study contributes to existing literature by identifying the significant mediating role of absorptive capacity in the linkage between knowledge sharing and innovation capability and by strengthening the positive association between innovation capability and competitive advantage.

Molek-Kozakowska, Katarzyna; Geisler, Robert (2020):

De-bureaucratising organisational culture at a public university. A mixed-method study of the implementation of a liberal arts programme.

In: *Higher Education Quarterly* 74 (4), S. 410–425. DOI: 10.1111/hequ.12262.

*Abstract:*

This article explores how public higher education institutions may design and implement new study programmes based on an example of a liberal arts programme adopted recently at a Polish university. Using a mixed-method approach (actor analysis, ethnographic thick description, and discourse and rhetorical analysis of communications), we approach the data to trace the processes of negotiating and implementing the programme innovation. The study identifies which aspects of organisational design and organisational culture facilitate curricular innovations in the context of a public university in order to offer evidence-based recommendations for innovation managers. Of special interest here are (1) relations of power and responsibility (leadership styles) that are conducive to institutional innovations, (2) (in)formal norms and communication practices of effective teamwork and organisational culture, and (3) discursive patterns that spawn innovative solutions that bring about institutional changes. The analysis offers an insight into the specific processes involved in the de-bureaucratising of public universities and reframing their organisational culture to resemble a 'learning organisation' that allows a continual renewal of its structures and communication routines, with the support of adequate managerial practices.

Nasim, Kanwal; Sikander, Arif; Tian, Xiaowen (2020):

Twenty years of research on total quality management in Higher Education. A systematic literature review.

In: *Higher Education Quarterly* 74 (1), S. 75–97. DOI: 10.1111/hequ.12227.

*Abstract:*

Faced with intensified global education competition, universities and other Higher Education institutions are implementing Total Quality Management (TQM) to keep rivals at bay. Meanwhile, research interest in TQM in Higher Education is growing. This paper reviews the achievements and limitations of extant research on TQM in Higher Education, and discusses directions for future research. The paper finds that extant research focuses on (1) teaching and learning but neglects research and industry engagement; (2) an isolated factor (e.g., teacher) but neglects other factors (e.g., facilities); (3) the Higher Education sector in advanced countries but neglects the Higher Education sector in developing countries; and (4) TQM as a phenomenon but neglects theory development and integration. Future research needs to address these limitations, adopt a more holistic perspective, and take a more inclusive and comprehensive approach to TQM in the Higher Education sector.

Niedlich, Sebastian; Kummer, Benjamin; Bauer, Mara; Rieckmann, Marco; Bormann, Inka (2020):

Cultures of sustainability governance in higher education institutions. A multi-case study of dimensions and implications.

In: *Higher Education Quarterly* 74 (4), S. 373–390. DOI: 10.1111/hequ.12237.

*Abstract:*

Organisational culture is frequently mentioned in the context of sustainability governance in higher education institutions, but its substance and role for organisational development remain largely unclear. This paper argues that, in fact, sustainability governance in higher education institutions is predicated on cultural orientations. These are explored empirically based on 61 expert interviews with stakeholders (management, sustainability commissioners, academic and technical staff, students) in eleven German higher education institutions. Qualitative (thematic, evaluative) content analysis was used to code and compare data across cases. The study identifies four cultural key dimensions and two overarching orientations: organisational learning orientation and holistic orientation. The analysis suggests that both orientations tend to reinforce each other. They also represent key areas which need to be addressed by higher education institutions seeking change towards sustainable development. The findings demonstrate the need for future research on organisational cultures of sustainability governance and their development over time.

Rahman, Shahedur; Ramakrishnan, Thiagarajan; Ngamassi, Louis (2020):

### Impact of social media use on student satisfaction in Higher Education.

In: *Higher Education Quarterly* 74 (3), S. 304–319. DOI: 10.1111/hequ.12228.

#### *Abstract:*

Social media has transformed the communication landscape for institutions of Higher Education by providing improved teaching and learning experience. However, very little is known as to whether the use of social media by Higher Education students improves their satisfaction. Grounded in social media, risk and technology acceptance literature, this paper examines Higher Education students' perceptions of social media use (SMU) and the impact of SMU on their satisfaction. Data collected from the students were analysed using Structural Equation Modelling. The study finds that: (1) perceived usefulness of social media has positive effect on the use of social media in student learning; (2) perceived risk of using social media discourages the use of the tool, and (3) SMU has positive effect on student satisfaction. The study further discusses the theoretical and practical implications of these findings.

Santos, João M.; Horta, Hugo; Zhang, Li-fang (2020):

### The association of thinking styles with research agendas among academics in the social sciences.

In: *Higher Education Quarterly* 74 (2), S. 193–210. DOI: 10.1111/hequ.12240.

#### *Abstract:*

Research agendas are understudied, despite being key to academic knowledge creation. The literature suggests that the ways that academics determine their research agendas are conditioned by individual, organisational and environmental characteristics. This study explores the cognitive aspects of academics' research agendas in the social sciences by using a theory on thinking styles as an analytical framework. The results suggest that the research agendas of academics in the social sciences are significantly associated with their thinking styles. These findings aid understanding of how academics set their research agendas. This study also represents an important landmark in research on thinking styles, focusing on academic research work as a potential venue for further studies. The findings are relevant for policymakers, research funding agencies, university administrators and academics because they have implications for academic research development processes, outcomes, and for research and academic identity socialisation during doctoral studies.

Seeber, Marco (2020):

### Framework and operationalisation challenges for quantitative comparative research in higher education.

In: *Higher Education Quarterly* 74 (2), S. 162–175. DOI: 10.1111/hequ.12245.

#### *Abstract:*

The increasing availability of data on higher education systems, institutions and their members creates new opportunities for comparative research adopting a quantitative approach. The value of future studies crucially depends on the capability to recognise and address some major methodological challenges existing in quantitative comparative research in higher education. The higher education context presents in fact specific features that can hinder comparisons, and political and social processes occurred in recent decades further enhanced complexity. This article aims to discuss key challenges that are currently met in quantitative comparative research in higher education while developing the conceptual framework and in research operationalisation, to discuss possible solutions and the value of configurational and multilevel analytical approaches in identifying meaningful objects of comparisons, to take into account the complexity of the higher education context and in identifying causal relationships.

Stinespring, John R.; Kench, Brian T.; Borja, Karla (2020):

### Using peer effects to explain retention rates in a private university.

In: *Higher Education Quarterly* 74 (3), S. 334–346. DOI: 10.1111/hequ.12208.

**Abstract:**

This study identifies factors associated with freshmen retention rates at a mid-size private university. A key finding from our analysis is that roommates' academic efforts, residing on an honours floor and membership in co-curricular groups increase retention. We also confirm many standard results in the literature regarding the impact on retention rates, such as student motivation and ability, and financial aid. We show that a timely housing application, closer proximity to home, a higher number of schools on a student's Free Application for Federal Student Aid and peer effects impact freshman retention. Our results suggest that a more sophisticated dormroom assignment algorithm matching students' abilities and interests could be considered to increase freshman retention rates among private institutions.

Stubbs, Joshua E.; Murphy, Emily C. (2020):

'You got into Oxbridge?'. Under-represented students' experiences of an elite university in the south of England.

In: *Higher Education Quarterly* 74 (4), S. 516–530. DOI: 10.1111/hequ.12251.

**Abstract:**

Amid concerns about the skewed socio-demographic composition of England's elite universities, this study sought to better understand what undergraduates from under-represented backgrounds found supportive in the process of them gaining an offer of admission from a prestigious university, and their social and academic experience of higher education. Twelve undergraduates who self-identified as originating from under-represented backgrounds participated in semi-structured interviews. Participants needed to experience explicit validation of their academic capabilities at national level, and of their (localised) social identities, before considering Oxbridge a viable institution for 'people like them'; in other words, these students engaged in their own form of benchmarking depending on their school setting. On entering higher education, some participants experienced being 'alienated' from certain social and academic spaces on the basis that many other students already 'seemed to know each other'. Findings suggest that the application process to more prestigious universities could be prioritised at earlier stages of education among under-represented groups, and that widening participation initiatives cannot simply stop at entrance to higher education.

Suspitsyna, Tatiana (2020):

Comparative and international education research in a post-truth era.

In: *Higher Education Quarterly* 74 (2), S. 124–135. DOI: 10.1111/hequ.12214.

**Abstract:**

The paper offers a postcolonial critique of comparative and international education (CIE) research in the United States (US) by tracing the Euro-centrism of its agendas, methodologies and publications to their colonial entanglements in the past and examining the current predicament of CIE in the context of the rising nationalist and anti-science discourses in the US. Viewed through the prism of actor-network theory, CIE represents a circulatory network of scholars and students, methods and surveys, national and supranational funding agencies and the public opinion that shapes education policymaking. As they seek to garner public support, create new allies among politicians and donors and infuse their network with international knowledge and scholars, CIE researchers revisit the ontological and epistemological assumptions of their field, address the dominance of Western perspectives in CIE in the context of the White House rhetoric of hostility toward non-Western nations and justify the veracity of their science to policymakers.

Tamrat, Wondwosen (2020):

The exigencies of student participation in university governance. Lip services and bottlenecks.

In: *Higher Education Quarterly* 74 (1), S. 35–47. DOI: 10.1111/hequ.12235.

*Abstract:*

This study was conducted to explore the level, type and quality of student participation in the governance milieu of twenty public universities in Ethiopia based on secondary data availed at a national level. The findings reveal that despite their demands and aspirations, students' participation in university governance is still at its lowest ebb across most of Ethiopian public universities both in terms of their representation at the available hierarchical structures and the quality of participation in matters of substantial importance to the student body. Given the multitude of advantages the institutions and students can garner from meaningful student participation, it is argued that changes need to be made in terms of improved representation, type and quality of student participation.

Thomas, Liz (2020):

'I am happy just doing the work ...'. Commuter student engagement in the wider higher education experience.

In: *Higher Education Quarterly* 74 (3), S. 290–303. DOI: 10.1111/hequ.12243.

*Abstract:*

This paper reports on a large qualitative study with commuter students in England. Research on student success identifies the importance of engagement in academic and non-academic aspects of the student experience; in this paper student engagement is segmented into academic, enhancement and social spheres. Commuter students, who often incorporate a range of equity characteristics, aim to achieve good degree and employment outcomes, and prioritise academic engagement. But commuting tempers their face-to-face academic engagement as they make trade-offs between the costs of travelling and the value of the academic encounter. Engagement in enhancement and social activities is limited and is seen by many as an extraneous aspect of the higher education experience. This lack of engagement can be understood through the employment of notions of economic, cultural and social capital, and these insights inform the recommendations for higher education providers to improve the engagement and outcomes of non-traditional students in higher education.

Torres-Olave, Blanca; Lee, Jenny J. (2020):

Shifting positionalities across international locations. Embodied knowledge, time-geography, and the polyvalence of privilege.

In: *Higher Education Quarterly* 74 (2), S. 136–148. DOI: 10.1111/hequ.12216.

*Abstract:*

Despite a robust body of scholarship on positionality, the practice of international Higher Education research often neglects engagement with the varied, fluid and complex positionalities of researchers across national boundaries. Through a series of vignettes, the authors argue for reflexivity that extends beyond rigid social identities and towards embodied knowledge, or self-understanding that is mutable and context responsive. For international mobile researchers especially, new affinities can evolve through propinquity and social custom, and gradually become incorporated into self-knowledge with the passing of time. Beyond mere cultural competency, this article raises the importance of symbolic competency that simultaneously negotiates the multiple dimensions of language, various forms of capital, as well as evolving social identities in conducting research in different contexts.

Winkler, Oliver; Sackmann, Reinhold (2020):

Degrees of 'eliteness' in higher education systems. A comparison between Germany and France.

In: *Higher Education Quarterly* 74 (4), S. 353–372. DOI: 10.1111/hequ.12269.



*Abstract:*

Education systems worldwide differ in their degree of eliteness. They range from being non-elitist with dominant patterns of horizontal differentiation (e.g., Germany) to being strongly elitist and having established elite education sectors (e.g., France). Quantitatively, it remains relatively unclear how the eliteness of education systems can be assessed and evaluated. We identify several theoretical mechanisms that are assumed to increase or decrease vertical differentiation between education institutions. For the analyses, we use two large secondary datasets of student beginners' higher education choices in Germany and France and test different measures of inequality and concentration (Gini index, Duncan's D, inverse Pareto coefficient, percentile ratios) to describe the degree of eliteness. We estimated the shares of students from higher status groups (high achievers, upper-tier service class academic milieu) in higher education institutions and fields of study and compared their distribution. Our findings indicate that analyses of percentiles, percentile ratios and inverse Pareto coefficient confirm an expected stronger concentration of high achieving students in the top of the distribution of higher education institutions and fields of study in France than in Germany. In comparison to students' achievement, social origin proved to be less important for country-specific differences in concentration.

Zarghami, Hamid Reza; Amrollahi, Alireza; Jafari, Mostafa (2020):

Research commercialisation and academic performance. A study of doctoral projects in Iran.

In: *Higher Education Quarterly* 74 (4), S. 475–496. DOI: 10.1111/hequ.12242.

*Abstract:*

This study focuses on how and to what extent factors identified in the literature influence academic and commercial outcomes, as well as the candidates' perception of the success and satisfaction from the results of PhD projects. Based on a survey of 607 PhD graduates and candidates, the relationship between contextual factors and subjective (related to the perception of candidates) and objective (such as publications and patents) outcomes of doctoral projects were examined. The results revealed higher satisfaction among candidates with commercialised research. Also, for the first time the effects of important, yet previously neglected, factors affecting the outcomes of PhD projects (such as the effect of the corresponding industrial sector, and personal economic situation of researchers) were studied. Studying the causal relationships among the variables is beneficial for developing policies aimed at enhancing the commercial and academic outcomes of PhD projects and improving candidate satisfaction.

## Reviews

Agasisti, Tommaso (2020):

The marketisation of English higher education. A policy analysis of a risk-based system (great debates in higher education), McCaig, Colin Emerald Publishing Limited, Bingley, UK, 2018. 187 pp. ISBN 9781787438576, £42.99 (paperback).

[Review]. In: *Higher Education Quarterly* 74 (2), S. 215–217. DOI: 10.1111/hequ.12250.

Cuthbert, Rob (2020):

Enfield Voices: The Birth of the People's Universities. Tom Bournier and Tony Crilly (Eds.), Published by tom.bournier@ntlworld.com and tonycrilly42@gmail.com, 2018. 363 pp. ISBN: 978-1717559715. £10.20 (paperback).

[Review]. In: *Higher Education Quarterly* 74 (1), S. 111–113. DOI: 10.1111/hequ.12213.

Dobbins, Michael (2020):

Higher education in federal countries: A comparative study Martin Carnoy Isak Froumin Oleg Leshukov and Simon Marginson Sage, New Delhi, India, 2018. 484 pp. £85.00 / 114.75 (cloth).

[Review]. In: *Higher Education Quarterly* 74 (4), S. 543–547. DOI: 10.1111/hequ.12270.

Whitchurch, Celia (2020):

Changing European Academics: A Comparative Study of Social Stratification, Work Patterns and Research Productivity. M. Kwiek. Routledge/SRHE, New York, 2019. ISBN 978-0-8153-9647-5 (hbk), ISBN 978-0-8153-9648-2 (pbk).

[Review]. In: *Higher Education Quarterly* 74 (2), S. 211–214. DOI: 10.1111/hequ.12215.

## Editorials

Gillespie, Kay (2020):

Questions, Questions, Questions, and More Questions.

[Editorial]. In: *Innovative Higher Education* 45 (3), S. 1–2. DOI: 10.1007/s10755-020-09505-x.

Major, Claire (2020):

Innovations in Teaching and Learning during a Time of Crisis.

[Editorial]. In: *Innovative Higher Education* 45 (4), S. 1–2. DOI: 10.1007/s10755-020-09514-w.

Major, Claire (2020):

Moving Forward: From the Past to the Future.

[Editorial]. In: *Innovative Higher Education* 45 (2), S. 101–102. DOI: 10.1007/s10755-020-09501-1.

Major, Claire (2020):

Productivity During a Pandemic.

[Editorial]. In: *Innovative Higher Education* 45 (5), S. 351–353. DOI: 10.1007/s10755-020-09521-x.

Major, Claire (2020):

Unprecedented Times and Innovation.

[Editorial]. In: *Innovative Higher Education* 45 (6), S. 1–2. DOI: 10.1007/s10755-020-09528-4.

Morris, Libby V. (2020):

Time for the Transition.

[Editorial]. In: *Innovative Higher Education* 45 (1), S. 1–2. DOI: 10.1007/s10755-019-09495-5.

## Original Articles

Almond, Devon (2020):

### Everyday Characteristics of American College Towns: Identification and Discussion.

In: *Innovative Higher Education* 45 (4), S. 267–284. DOI: 10.1007/s10755-020-09504-y.

#### Abstract:

American college towns represent a unique but understudied feature of the global educational landscape. With hundreds of college towns dotting the American geographical landscape, this uniqueness is particularly relevant for rural higher education. This article identifies a taxonomy of characteristics found commonly in the everyday environments of American college towns. The taxonomy, which represents a research-based model to embed higher education into the everyday cultural ecosystems of small towns where there are few, if any, place-based higher education institutions, is a result of a study encompassing 100 American college towns across 34 states. Although the study considered only the surface structures observed through first encounters in college towns, the drive-by nature of the study and its conclusions offer a unique contribution to the body of higher education research. I close with discussion and offer some implications for rural communities.

Ave, James S.; Beasley, Devin; Brogan, Amy (2020):

### A Comparative Investigation of Student Learning through PechaKucha Presentations in Online Higher Education.

In: *Innovative Higher Education* 45 (5), S. 373–386. DOI: 10.1007/s10755-020-09507-9.

#### Abstract:

The purpose of this study was to determine if using student recorded PechaKucha™ 20 × 20 presentations as an assignment in an online classroom yielded equivalent student learning compared to a similar written assignment. Twenty-one (15 women and 6 men) online graduate students participated in a mixed-method study using online surveys with a quasi-experimental design. While it was determined that student learning was similar regardless of assignment type ( $t(20) = 1.481$ ,  $p = .154$ ), the study revealed benefits of using recorded PechaKucha presentations, including increased content engagement and increased student enjoyment.

Beasley, Samuel T.; Vandiver, Beverly J.; Dillard, Ronald; Malone, Walter; Ott, Randy (2020):

### The Development of an Academic Engagement Intervention for Academically Dismissed Students.

In: *Innovative Higher Education* 45 (5), S. 1–17. DOI: 10.1007/s10755-020-09510-0.

#### Abstract:

"Reclaim the W" is an academic recovery program at a medium-sized midwestern university that offers undergraduates who have been academically dismissed a chance to reenroll at the institution. In this article we describe the Reclaim the W program and its target population of academically at-risk undergraduates. We then outline the first two phases of the process we used to develop an intervention for students in the Reclaim the W program, which we call Engage to Excel (E2). In the first phase we collected data from focus groups with academically at-risk students and professional staff who serve these students. This qualitative data informed the creation of the E2 intervention for students in the Reclaim the W program. In the second phase we identified key components of the quasi-experimental E2 intervention and outlined the student outcomes that will be evaluated during the intervention. Finally, we highlight research and practice implications of the E2 intervention.

Benz, Terressa A.; Piskulich, J. P.; Kim, Sung-eun; Barry, Meaghan; Havstad, Joyce C. (2020):

### Student Philanthropy and Community Engagement: A Program Evaluation.

In: *Innovative Higher Education* 45 (1), S. 17–33. DOI: 10.1007/s10755-019-09484-8.

#### Abstract:

Community engagement in the classroom can take several forms such as engaged scholarship, service learning, and philanthropy. Each of these activities connects course material with the immediate community, creating a multi-directional discourse. In this article we explain and provide a program evaluation of the Student Philanthropy and Community Engagement Program (SPCEP) run in a wide variety of classes at Oakland University in Michigan. The results indicate that SPCEP is effectively increasing students' philanthropic inclinations while also increasing their engagement with and knowledge of the local community. These findings have important implications for the classroom, university reputation, and the local community.

Borba, Gustavo Severo de; Alves, Isa Mara; Campagnolo, Paula Dal Bó (2020):

### How Learning Spaces Can Collaborate with Student Engagement and Enhance Student-Faculty Interaction in Higher Education.

In: *Innovative Higher Education* 45 (1), S. 51–63. DOI: 10.1007/s10755-019-09483-9.

#### Abstract:

This article explains the relationship between learning spaces and the furtherance of student engagement and enhancement of student-faculty interaction. Following a design-driven methodology and considering flexibility, interaction, and connectivity as core elements to classroom design, we have prototyped spaces and implemented them in 96 classrooms. After doing so, we evaluated how the classrooms were used through a mixed-methods study that involved more than a thousand students. The results of this study highlight the importance of the physical space as a factor that contributes to student engagement and connects both students and professors in an active learning process.

Buckley, Jessica Belue; Michel, Jessica Ostrow (2020):

### An Examination of Higher Education Institutional Level Learning Outcomes Related to Sustainability.

In: *Innovative Higher Education* 45 (3), S. 201–217. DOI: 10.1007/s10755-019-09493-7.

#### Abstract:

In light of the rapid growth of the movement for educating students about sustainability, this study sought to understand the content and context of sustainability-related learning outcomes in higher education institutions in the United States by using data from 47 institutions. Findings show how institutions operationalize learning for sustainability, a continuum of location of these learning outcomes, and a range of pedagogical beliefs about learning for sustainability. Implications include the potential for a new schematic definition for sustainability in learning, and we identify theoretical tools to help define and measure learning for sustainability and provide suggestions for innovative ways for institutions to shape learning about sustainability.

Burnett, Christopher A. (2020):

### Diversity under Review: HBCUs and Regional Accreditation Actions.

In: *Innovative Higher Education* 45 (1), S. 3–15. DOI: 10.1007/s10755-019-09482-w.

#### Abstract:

Regional accreditation remains a central method of accountability in the United States and the gatekeeper to federal financial aid. Without such funding many colleges and universities would not survive. Prior research suggests that Historically Black Colleges and Universities (HBCUs) face disproportionate accreditation sanctions compared with other institutions. Focusing on colleges and universities in the southern states, this study used logistic regression to test whether HBCUs have higher odds of being sanctioned than other institutions after controlling for characteristics such as budgetary

resources and graduation rates. Results demonstrate a statistically significant relationship between HBCU-status and negative accreditation actions.

Cavner Williams, Lauren; Conley, Kristin; Pavletic, Heather; Weller, Kirk (2020):

#### C4 Scholar Program: Promoting Success through Accountability for At-risk Students.

In: *Innovative Higher Education* 45 (3), S. 221–235. DOI: 10.1007/s10755-019-09498-2.

##### *Abstract:*

The C4 Scholar Program (Cross Curricular Career Community) is an interdisciplinary, multi-semester learning community for first-year developmental students at a comprehensive midwestern state university. Faculty members from two units, Retention & Student Success and Arts and Sciences, created the program to address a persistent gap in retention between developmental and non-developmental first-year students. This article provides a description of the pilot phase and an explanation of how the ensuing comparative analysis led to adoption of a program framework based on business management literature. The framework, which was implemented with the next two cohorts, contributed to strong comparative gains in performance and retention.

Chávez Herting, David; Cladellas Pros, Ramón; Castelló Tarrida, Antoni (2020):

#### Patterns of PowerPoint Use in Higher Education: A Comparison between the Natural, Medical, and Social Sciences.

In: *Innovative Higher Education* 45 (1), S. 65–80. DOI: 10.1007/s10755-019-09488-4.

##### *Abstract:*

PowerPoint is one of the most widely used technological tools in educational contexts, but little is known about the differences in usage patterns by faculty members from various disciplines. For the study we report in this article we used a survey specially designed to explore this question, and it was completed by 106 faculty members from different disciplines. The results suggest the existence of different patterns in the use of PowerPoint. In addition, the importance of habit in its use is highlighted. Those professors who reported greater dependence on PowerPoint tended to use PowerPoint primarily as study material for their students. We discuss the practical relevance of these results.

Culpepper, Dawn; Kilmer, Sarah; O'Meara, Kerry Ann; Misra, Joya; Jaeger, Audrey J. (2020):

#### The Terrapin Time Initiative: A Workshop to Enhance Alignment between Faculty Work Priorities and Time-Use.

In: *Innovative Higher Education* 45 (2), S. 165–179. DOI: 10.1007/s10755-019-09490-w.

##### *Abstract:*

Faculty members experience a gap between how they would prefer to spend their work time and how they actually do so. In this article we report results from a four-week workshop called “The Terrapin Time Initiative.” It was guided by theories of behavioral economics and behavioral design, which suggest that small changes to the context, or “choice architecture,” in which individuals make choices can enhance decision-making. Results indicate that the workshop was effective in changing the “choice architecture” in which faculty made decisions about their time-use, thereby helping them to develop new strategies for managing their time.

Culver, K. C.; Young, Ryan L.; Barnhardt, Cassie L. (2020):

**Communicating Support: Examining Perceived Organizational Support among Faculty Members with Differing Appointment Types.**

In: *Innovative Higher Education* 45 (4), S. 299–315. DOI: 10.1007/s10755-020-09503-z.

*Abstract:*

Given the changing landscape of postsecondary faculty employment, institutions benefit from understanding how organizational policies and behaviors affects the faculty's perception of organizational support. Using data from faculty members, including those with contingent and part-time appointments, at a single institution in the western United States, this study examined how the faculty's perceptions of structures and behaviors at the departmental, college, and campus levels affect their perception of organizational support. Results suggest that part-time faculty members are significantly less likely to feel supported; however, as their perceptions of being valued by college and senior administrators increase, so do their perceptions of support. Findings suggest avenues for organizational leaders to promote commitment among all faculty members.

Farakish, Negar; Jaggars, Shanna; Fay, Maggie (2020):

**Public-private Partnership: How and Why Six Community Colleges Loved and Left a For-profit Partner.**

In: *Innovative Higher Education* 45 (3), S. 237–252. DOI: 10.1007/s10755-020-09500-2.

*Abstract:*

Colleges are increasingly open to partnering with private entities to implement new and innovative programs. Community colleges, in particular, may find such partnerships beneficial, given that these institutions often lack the necessary resources to invest up-front in programs that may yield strong long-term dividends. In this article we report on an examination of a partnership between a privately-held firm and six community colleges, which had established honors programs with the goal of facilitating students' transfer to highly selective institutions. Our analysis traces the evolution of the partnership and the reasons for its eventual failure, and we offer insights for public institutions and privately-held companies wishing to establish similar partnerships.

Fitzgerald, Sarah Rose; Jiang, Zhehan (2020):

**Scholarly Publishing at a Crossroads: Scholarly Perspectives on Open Access.**

In: *Innovative Higher Education* 45 (6), S. 457–469. DOI: 10.1007/s10755-020-09508-8.

*Abstract:*

The cost of access to scholarly research creates inequity for readers with varying resources. Open access publishing is an avenue to address this inequity. This research employed a survey of scholars to discover what they know and think about open access. The survey elicited both faculty and doctoral student perspectives. Data were analyzed according to rank and discipline. Although the majority of scholars across disciplines agreed that their work should be freely available to all readers, there were significant differences between disciplines regarding whether scholars had distributed their publications through open access. The survey instrument was examined through Exploratory Factor Analysis.

Harris, Michael S. (2020):

**An Empirical Typology of the Institutional Diversity of U.S. Colleges and Universities.**

In: *Innovative Higher Education* 45 (3), S. 183–199. DOI: 10.1007/s10755-019-09494-6.

*Abstract:*

Researchers consider a high level of institutional diversity in a higher education system as a strength. While the literature considers key elements of diversity, existing research fails to employ methodological approaches that balance the need for

capturing the breadth and depth of similarities and differences across institutions. This article reports on the use of cluster analysis to examine data from the Integrated Postsecondary Education Data System (IPEDS) and to create a typology of six institutional types present across four-year institutions in U.S. higher education. The typology presented here helps identify the main types of institutions and offers useful insights for understanding the current state of institutional diversity. Drawing from the research on institutional diversity and organizational theory, the findings of this study provide a typology that can inform both researchers and practitioners as they compare different institutions. An enhanced understanding of the similarities and differences between institutions can clarify not only the range of characteristics and features within U.S. higher education, but also guide administrative decision-making.

Israel, Uriah; Koester, Benjamin P.; McKay, Timothy A. (2020):

### Campus Connections: Student and Course Networks in Higher Education.

In: *Innovative Higher Education* 45 (2), S. 135–151. DOI: 10.1007/s10755-019-09497-3.

#### Abstract:

Residential higher education brings thousands of students together for multiple years and offers them an array of shared intellectual experiences and a network of social interactions. Many of these intellectual and social connections are formed during courses. Students are connected to students through courses they take together, and courses are connected to one another by students who take both. These courses and the students who take them form a bipartite network that encodes information about campus structures and student experiences. Because all institutions of higher education collect and maintain precise records of what courses students take, it is possible to assemble a student-course network that quantitatively describes the interactions among students and courses. We provide an example that demonstrates the identification of courses effective at creating unique connections among students and reveals how students and majors can be strongly connected or dispersed. We show how social network analysis can be used to improve our understanding of the learning environment at the University of Michigan, and we hope that this kind of analysis is of interest to persons at other institutions.

Johnson, David R.; Scheitle, Christopher P.; Juvera, Ashley; Miller, Robert; Rivera, Vincent (2020):

### A Social Exchange Perspective on Outside of Class Interactions between Underrepresented Students and Faculty.

In: *Innovative Higher Education* 45 (6), S. 489–507. DOI: 10.1007/s10755-020-09518-6.

#### Abstract:

Existing explanations of faculty-student interactions emphasize social-organizational characteristics of higher education to the exclusion of social-psychological dimensions of the interactions themselves. Yet, student perceptions are essential cognitive elements that influence frequency of, and growth from, informal interaction with faculty. Drawing on a survey of students at a large public university, this paper expands theoretical understanding of faculty-student interactions by considering how social exchange theory helps explain frequency of, and growth from, informal interactions—and how such patterns vary by social identity.

Johnson, Matthew D.; Sprowles, Amy E.; Goldenberg, Katlin R.; Margell, Steven T.; Castellino, Lisa (2020):

### Effect of a Place-Based Learning Community on Belonging, Persistence, and Equity Gaps for First-Year STEM Students.

In: *Innovative Higher Education* 45 (6), S. 509–531. DOI: 10.1007/s10755-020-09519-5.

#### Abstract:

We combined tenets of learning communities and place-based learning to develop an innovative first-year program for STEM students. Using a quasi-experimental design, we found that participants in the place-based learning community had a stronger sense of belonging, improved academic performance, and increased first-year persistence relative to a matched reference group. We also showed that participation narrowed equity gaps in first-year outcomes for students underrepresented in the sciences. A sense of place arises not just from a location, but from interrelationships between



people and the natural world, and these results suggest organizing learning around place can promote inclusive student success.

Jones, Rebecca M.; Cleaver, Rachel (2020):

### Recruiting and Enrolling Rural Students: A Model for Increasing Diversity in STEM.

In: *Innovative Higher Education* 45 (3), S. 253–263. DOI: 10.1007/s10755-020-09499-6.

#### Abstract:

The Rural and Diverse Student Scholars Program at George Mason University is a strategic initiative to recruit and retain rural and diverse Virginia students in STEM majors. A grant facilitated a partnership between an academic college and the Office of Admissions, enabling new recruiting methods to be tested. In this article we describe these recruitment efforts, summarize the outcomes, and share lessons learned. We observed themes of family involvement, finances, and perceived opportunity as relevant to this population's decision to enroll. Our experience recruiting for this program may inform other institutions that desire to diversify their student body in STEM.

Kezar, Adrianna; Dizon, Jude Paul Matias; Scott, Daniel (2020):

### Senior Leadership Teams in Higher Education: What We Know and What We Need to Know.

In: *Innovative Higher Education* 45 (2), S. 103–120. DOI: 10.1007/s10755-019-09491-9.

#### Abstract:

Senior leadership teams are the key decision-makers invested with authority who work collectively to achieve organizational goals. While there is a rich literature on this topic across many disciplines, there is a dearth of research on this topic in higher education. In this article we argue for the need for research on senior leadership teams given their centrality in facilitating the changes needed in higher education. We summarize the key literature from other sectors in order to provide a foundation for a higher education research agenda on this topic. We also review the limited number of such studies that have been conducted in higher education, and we end with implications for practice and a proposed research agenda.

Kim, Dongbin; Twombly, Susan B.; Wolf-Wendel, Lisa; Belin, Angie A. (2020):

### Understanding Career Mobility of Professors: Does Foreign-Born Status Matter?

In: *Innovative Higher Education* 45 (6), S. 471–488. DOI: 10.1007/s10755-020-09513-x.

#### Abstract:

The purpose of this study was to seek to understand the mobility patterns of faculty members, with particular attention to foreign-born faculty members who work at 4-year colleges and universities in the United States. Examining data from the Survey of Doctorate Recipients, we looked at the mobility patterns of faculty members who held tenure-track faculty positions in 2003 and who responded to the survey again in 2013 (a 10-year time period). After examining different types of mobility, we found that the only significant difference was that, all things being equal, foreign-born faculty members were less likely to move into administration than U.S.-born faculty members. Foreign-born faculty members were no different from their U.S.-born counterparts in their mobility to other universities or to business/industry.

Lewis, Drew (2020):

### Student Anxiety in Standards-based Grading in Mathematics Courses.

In: *Innovative Higher Education* 45 (2), S. 153–164. DOI: 10.1007/s10755-019-09489-3.

*Abstract:*

This paper describes a study examining how mathematics anxiety, test anxiety, and communication apprehension are related to student behavior in courses using standards-based grading. An observational study of mathematics courses with 221 participants found that test anxiety increased over the semester although many students reported lower stress or anxiety in an open-ended survey question. Mathematics anxiety and test anxiety were positively correlated with the number of voluntary reassessments students attempted, while communication apprehension was negatively correlated. These findings indicate that standards-based grading is an assessment framework that can provide alternate methods for some students to demonstrate content mastery. While this study was conducted in mathematics courses, the findings on test anxiety are likely to extend to other disciplines.

Markle, Gail; Stelzriede, Danelle Dyckhoff (2020):

### Comparing First-Generation Students to Continuing-Generation Students and the Impact of a First-Generation Learning Community.

In: *Innovative Higher Education* 45 (4), S. 285–298. DOI: 10.1007/s10755-020-09502-0.

*Abstract:*

This study examined how factors associated with student development and persistence differ between first-generation and continuing-generation students and how participation in a learning community influences development and persistence. The findings show that first-generation students were less involved in academics and had lower gains in intellectual development and engagement with diverse perspectives than did continuing-generation students. There was no significant difference between the two groups on first-to-second year persistence rates. First-generation students who participated in the learning community outperformed continuing-generation students in gains in intellectual development, interpersonal development, and engagement with diverse perspectives. There was no significant difference in persistence between first-generation students who were in the learning community and those who were not.

Michel, Jessica Ostrow (2020):

### Mapping out Students' Opportunity to Learn about Sustainability across the Higher Education Curriculum.

In: *Innovative Higher Education* 45 (5), S. 355–371. DOI: 10.1007/s10755-020-09509-7.

*Abstract:*

Decades of policy initiatives, a developing body of literature, and a growing cadre of practitioners are united in suggesting that the preeminent approach to educating students about sustainability is by infusion throughout the higher education curriculum. While there is mounting evidence that sustainability should be taught to students beyond the disciplinary confines of natural science and geography, little is known about the prevalence of this topic throughout an entire higher education curriculum. Therefore the study reported here aimed to capture a bird's eye view of the presence of sustainability subject matter at one higher education institution through survey research. The findings showed that nearly two-thirds of the student participants reported that they had exposure to sustainability subject matter during the course of one academic semester. Of the students who reported that they did have the opportunity to learn, most of them only learned about sustainability at one point in time. Inadequate time is being devoted to educating students about sustainability, especially given the amount of time and effort needed to promote a transformative learning experience. As a result of these findings, the recommendation is that administrators and policymakers advocate for repetition of sustainability subject matter across the curriculum, instead of the common discourse merely calling for it to be infused throughout the curriculum.

Miller, Ryan A.; Struve, Laura E. (2020):

### "Heavy Lifters of the University": Non-Tenure Track Faculty Teaching Required Diversity Courses.

In: *Innovative Higher Education* 45 (6), S. 437–455. DOI: 10.1007/s10755-020-09517-7.

*Abstract:*

Higher education institutions have adopted diversity course requirements while hiring more faculty members off the tenure track. Non-tenure track faculty members' experiences teaching required diversity courses while navigating their precarious employment status has not been sufficiently explored. Addressing this need, the present study examined the experiences of non-tenure track instructors teaching diversity courses as part of general education programs at five colleges and how they understood their relationships to the diversity course requirement and the institution. Instructors perceived themselves as institutional "heavy lifters," yet emphasized that their precarious status left them disconnected from the diversity requirement and the larger campus.

Mokher, Christine G.; Park-Gaghan, Toby J.; Spencer, Hayley; Hu, Xinye; Hu, Shouping (2020):

### Institutional Transformation Reflected: Engagement in Sensemaking and Organizational Learning in Florida's Developmental Education Reform.

In: *Innovative Higher Education* 45 (1), S. 81–97. DOI: 10.1007/s10755-019-09487-5.

*Abstract:*

Following a major statewide developmental education reform in Florida, we explored institutional transformation among Florida College System institutions. We used statewide survey data to examine lead administrators' perceptions of challenges encountered during the planning process, ways in which colleges engaged in sensemaking (i.e., social processes for developing shared understanding) and organizational learning, and perceptions of the institutional transformation processes and outcomes following the reform. We found that institutions engaged in numerous types of sensemaking and organizational learning practices to promote change. Yet, despite different approaches taken to institutional transformation, almost all respondents reported that the change process was highly collaborative and involved a broad range of stakeholders.

Petersen, Sandra; Pearson, Barbara Zurer; Moriarty, Mary A. (2020):

### Amplifying Voices: Investigating a Cross-Institutional, Mutual Mentoring Program for URM Women in STEM.

In: *Innovative Higher Education* 45 (4), S. 317–332. DOI: 10.1007/s10755-020-09506-w.

*Abstract:*

Underrepresented minority women in STEM comprise the faculty group most likely to leave academia. To address this issue we instituted a program called "Amplifying Voices," a virtual, mutual mentoring program linking four groups of six women across 20 institutions. We facilitated bi-weekly Zoom meetings for two years and evaluated the effectiveness of the program. Participants reported reduced isolation, increased confidence, and enhanced self-efficacy. The groups were considered most successful when comprised of women who had similar career goals, but different perspectives, experiences, academic ranks and institutional affiliations. To inform future mentoring efforts, we identified issues and strategies frequently discussed in meetings.

Robertson, Douglas L. (2020):

### Adult Students in U.S. Higher Education: An Evidence-Based Commentary and Recommended Best Practices.

In: *Innovative Higher Education* 45 (2), S. 121–134. DOI: 10.1007/s10755-019-09492-8.

*Abstract:*

This article presents 50 year patterns of adult student participation in colleges and universities in the United States. These patterns changed dramatically in the 1970s and 1980s and then stabilized. Following these changes, adult student participation has continued to be significant and predictable in U.S. colleges and universities. In addition to reporting on these national patterns, this article includes commentary that addresses five, evidence-based, best practices for serving

adult students in this higher education context. Special attention is given to place-bound, adult students in metropolitan regions.

Robertson, Douglas L. (2020):

**Student Success, Research Preeminence, and Unintended Consequences at Public Metropolitan Research Universities.**

In: *Innovative Higher Education* 45 (1), S. 35–49. DOI: 10.1007/s10755-019-09481-x.

**Abstract:**

This article extends a line of research on intentional change at public metropolitan research universities that aims to improve undergraduate student success (as measured by graduation and retention rates) while improving access (as measured by Pell and minority rates). Some of the issues that have emerged from this line of research involve the dynamics of various competing goals, such as (a) student success and student access and (b) student success with access and research preeminence. This article uses performance data to examine the challenges of improving success with access and research preeminence, simultaneously, at public metropolitan research universities. A case study offers an illustration of the challenges and clarifies the unintended consequences.

Simmons, Reginald; Smith, Kathleen Shea (2020):

**Success Central: Addressing the Persistence of African-American and Latinx College Students Using a Peer Success Coaching Intervention.**

In: *Innovative Higher Education* 45 (5), S. 419–434. DOI: 10.1007/s10755-020-09516-8.

**Abstract:**

African-American and Latinx enrollment in higher education has increased dramatically in recent years at many predominantly White institutions. However, the graduation rates of these students are substantially lower than the general student population at many of these institutions. This study introduces “Success Central,” an innovative peer coaching initiative offered at a mid-size, comprehensive regional institution. Instead of post-graduate professionals employed as success coaches, which is the typical practice, upper-class undergraduate students were selected and trained in an innovative life coaching intervention designed to address the root causes of student attrition as established in the literature examining the academic and non-academic factors that contribute to early departure. Students met regularly with assigned peer coaches who supported them to address their challenges and accomplishment of their desired goals. The results of this program exceeded the objective of equal persistence rates between the underrepresented students of color who had received peer-coaching and their majority counterparts. Additionally, students who experienced this intervention reported an improvement in their perception of their college experiences and academic skills.

Tevis, Tenisha; Britton, Kristi (2020):

**First-Year Student Experiences: Uncovering the Hidden Expectations of Frontline Faculty Members and Student Services Administrators.**

In: *Innovative Higher Education* 45 (4), S. 333–349. DOI: 10.1007/s10755-020-09511-z.

**Abstract:**

Research that explores the experiences of college students consistently finds that the first year is the most daunting to navigate. While a well-established but far from exhaustive list of factors has been found to impact a student’s transition to and retention in college, very little research has focused on frontline faculty and student services administrators’ hidden expectations of first-year students. Therefore, we explored what we call the integration information gap – the gap between what is expected of first-year students and what they actually know – how this gap is formed and how it can be narrowed. As a contribution to the literature on transition to college and retention, we discuss ways to prevent the gap, strategies to assist faculty members and administrators in an effort to narrow the gap, and suggestions for future research.

Waity, Julia Ferrara; Huelskamp, Amelia; Russell, Jaime (2020):

Collaborating to Assess and Address Food Insecurity on a College Campus: A Case Study at a Mid-Sized, Regional University.

In: *Innovative Higher Education* 45 (5), S. 405–417. DOI: 10.1007/s10755-020-09512-y.

*Abstract:*

This study examined a cross-campus collaboration to assess levels of student food insecurity, to identify factors contributing to increased risk for food insecurity, and to determine how to address food insecurity. A random sample of students at a public, mid-sized, regional university were asked to complete an electronic survey about food insecurity and related topics. A majority (65%) indicated being at least marginally food insecure. In terms of strategies to address food insecurity, students were not aware of or did not use food pantries. These findings encouraged the university to engage in a collaborative effort to create a food pantry in support of student wellbeing and positive academic outcomes.

## Specials

Thank You to Our Guest Reviewers, 2019!

[Acknowledgements] (2020). In: *Innovative Higher Education* 45 (1), S. 99–100.

Buckley, Jessica Belue; Michel, Jessica Ostrow (2020):

Correction to: An Examination of Higher Education Institutional Level Learning Outcomes Related to Sustainability.

[Correction]. In: *Innovative Higher Education* 45 (3), S. 219. DOI: 10.1007/s10755-020-09515-9.

*Abstract:*

Correction to: Innovative Higher Education

<https://doi.org/10.1007/s10755-019-09493-7>

In the original publication, the article title was incorrect. The correct title should be “An Examination of Higher Education Institutional Level Learning Outcomes Related to Sustainability.” The original article has been corrected.

# Journal for Labour Market Research (54) 2020

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## Original Articles

Bossler, Mario; Gürtzgen, Nicole; Kubis, Alexander; Küfner, Benjamin; Lochner, Benjamin (2020):

The IAB Job Vacancy Survey. Design and research potential.

In: *Journal for Labour Market Research* 54 (1), 12 S. DOI: 10.1186/s12651-020-00278-6.

### Abstract:

This article provides an overview of the IAB Job Vacancy Survey and its research potential. The IAB Job Vacancy Survey is a quarterly establishment survey covering the (un-)satisfied labor demand in Germany. This survey identifies the entire number of vacancies on the German labor market, including those vacancies that are not reported to the Federal Employment Agency. The main questionnaire obtains information about the number and structure of vacancies, future labor demand, the current economic situation and the expected development of participating establishments. In addition, the questionnaire collects information about the last new hiring and the last case of a failed recruitment process. Finally, the questionnaire enquires about employer attitudes and firms' use of current labor market instruments. The Research Data Centre of the German Federal Employment Agency offers access to the data starting from the survey waves 2000 onwards.

Bruckmeier, Kerstin; Dummert, Sandra; Grunau, Philipp; Hohmeyer, Katrin; Lietzmann, Torsten (2020):

New administrative data on welfare dynamics in Germany. The Sample of Integrated Welfare Benefit Biographies (SIG).

In: *Journal for Labour Market Research* 54 (1), 12 S. DOI: 10.1186/s12651-020-00280-y.

### Abstract:

The Sample of Integrated Welfare Benefit Biographies (SIG) is a new administrative longitudinal microdata set representative of recipients of Germany's main welfare programme, the Unemployment Benefit II (UB II, Arbeitslosengeld II). The data set contains detailed longitudinal information on welfare receipt and labour market activities, and hence enables researchers to analyse the dynamics of benefit receipt, income and employment. A distinct feature of the SIG is that it provides information not only for individual benefit recipients but also for family members, including children and partners. This is possible because eligibility for UB II benefits depends on the household structure, and it is means-tested on household income. In addition to socio-demographic and regional information, the SIG contains extensive information on the employment biographies of benefit recipients and their household members from the Integrated Employment Biographies (IEB) of the Institute for Employment Research (IAB). This allows researchers to examine the interaction between labour market participation and benefit receipt. The SIG is available to researchers at the Research Data Centre (FDZ) of the Federal Employment Agency (BA) at the IAB.

Brüggmann, Daniel (2020):

Women's employment, income and divorce in West Germany. A causal approach.

In: *Journal for Labour Market Research* 54 (1), 22 S. DOI: 10.1186/s12651-020-00270-0.

*Abstract:*

In this paper, I assess the employment and income effect of divorce for women in West Germany between 2000 and 2005. With newly available administrative data that allows me to adopt a causal approach, I find strong negative employment effects with respect to marginal employment and strong positive effects with respect to regular employment. However, in sum, the overall employment rate (marginal and regular employment combined) is not affected. Furthermore, the lower the labor market attachment before separation is, the more pronounced employment effects are. In addition, I also estimate the impact of divorce on daily gross incomes. I find no convincing evidence for an income effect. I conclude that a divorce might have a pure labor supply effect only.

Christl, Michael (2020):

### A Beveridge curve decomposition for Austria. Did the liberalisation of the Austrian labour market shift the Beveridge curve?

In: *Journal for Labour Market Research* 54 (1), 15 S. DOI: 10.1186/s12651-020-00271-z.

*Abstract:*

The Austrian Beveridge curve shifted in 2014, leading to the ongoing academic discussions about the reasons behind this shift. While some economists have argued that the shift was caused by a supply shock related to the labour market liberalisation during the course of the eastern enlargement of the European Union (EU), others have stated that a decrease in matching efficiency led to the shift. Using a new decomposition method, we combine labour market flow data and disentangle labour supply, labour demand, separation and matching factors, which can be potential reasons behind the shift in the Austrian Beveridge curve. We find empirical evidence that the increase in the unemployment rate in Austria after 2011 can indeed be attributed to a supply shock related to the EU enlargement. On the contrary, the data reveals that the shift after 2014 and the related increase in unemployment was almost exclusively caused by a decrease in matching efficiency, indicating a rising mismatch problem in the Austrian labour market.

Dauth, Wolfgang; Eppelsheimer, Johann (2020):

### Preparing the sample of integrated labour market biographies (SIAB) for scientific analysis. A guide.

In: *Journal for Labour Market Research* 54 (1), 14 S. DOI: 10.1186/s12651-020-00275-9.

*Abstract:*

Preparing the Sample of Integrated Labour Market Biographies (SIAB) for scientific analysis is a complicated and error-prone task. This paper elaborates on the steps necessary to prepare the SIAB and provides examples of how the preparation can be done. Among other topics covered, we show how to generate and merge additional variables, impute right-censored wages, deal with parallel employment episodes, and clean the dataset. Finally, we present a case study on the individual long-term effects of job loss from plant closure to demonstrate how our prepared version of the SIAB can be used to carry out an empirical analysis. The supplementary material of this paper contains extensively commented Stata do-files to replicate our data preparation and the subsequent analysis.

Fitzenberger, Bernd; Seidlitz, Arnim (2020):

### The 2011 break in the part-time indicator and the evolution of wage inequality in Germany.

In: *Journal for Labour Market Research* 54 (1), 14 S. DOI: 10.1186/s12651-019-0265-0.

*Abstract:*

German social security records involve an indicator for part-time or full-time work. In 2011, the reporting procedure was changed suggesting that a fraction of worker recorded to be working full-time before the change were in fact part-time workers. This study develops a correction based on estimating the probability of being a part-time worker before and after the break. Using the correction, the paper confirms that the rise in wage inequality among full-time workers in West Germany until 2010 is not a spurious consequence of the misreporting of working time.

Fredriksen, Kaja (2020):

**Does occupational licensing impact incomes? A replication study for the German crafts case.**

In: *Journal for Labour Market Research* 54 (1), 17 S. DOI: 10.1186/s12651-020-00269-7.

**Abstract:**

Large variation in the estimated income premium of occupational licensing can be found in the existing literature. I revisit the natural experimental design of a change in the German crafts regulation in 2004, which removed the traditional licensing requirement for self-employment in certain trades, using official survey data and difference-in-differences estimation. Previous studies of this deregulation have found significant, yet small effects on the incomes of employees in deregulated trades. I focus on the incomes of the self-employed and find no robust effects. Multiple channels through which occupational licensing may affect incomes such as price and quality competition in the regulated market and possible competitive pressure from outsiders are identified, which may also explain why the effects of occupational licensing on incomes appear to be context-specific.

Granberg, Mark; Ottosson, Niklas; Ahmed, Ali (2020):

**Do ethnicity and sex of employers affect applicants' job interest? An experimental exploration.**

In: *Journal for Labour Market Research* 54 (1), 10 S. DOI: 10.1186/s12651-020-00281-x.

**Abstract:**

Starting a business is one way out of unemployment for many people. Having a small pool of job applicants may, however, affect the quality of manpower available to employers. This paper reports the results of an experimental study that examined whether job-seekers discriminate against prospective employers based on those employers' ethnicity and sex. We conducted an experiment with 889 university students, where we presented 10 hypothetical job vacancies in the restaurant sector to the participants. We then asked participants to state their willingness to apply to each job. The ethnicity and sex of the employers were conveyed through employers' names by using typical male and female Arabic- and Swedish-sounding names. Overall, our results provided no evidence of ethnic or sex discrimination by job-seekers against employers.

Gross, Christiane; Gurr, Thomas; Jungbauer-Gans, Monika; Lang, Sebastian (2020):

**Prejudices against the unemployed. Empirical evidence from Germany.**

In: *Journal for Labour Market Research* 54 (1), 13 S. DOI: 10.1186/s12651-020-00268-8.

**Abstract:**

Prejudices against the unemployed pose an enormous threat to their self-confidence and can make it difficult for them to re-enter the labour market, resulting in further long-term unemployment. Given these high costs for the unemployed and for society as a whole, our knowledge of prejudices against the unemployed is surprisingly scarce. We focus on the question of what determines the strength of prejudice among employees. By applying social identity theory, we assume that people who are disadvantaged in the labour market in general, also hold stronger prejudices. In addition, we assume that social status mediates this association and that self-efficacy moderates it. We use data from the German panel study "Labour Market and Social Security" (PASS) and show that some groups of people who are themselves disadvantaged in the labour market (women and first-generation immigrants) have more prejudices against the unemployed; however, people with poor mental health have even fewer prejudices. Low social status (in terms of educational background, income, and job status) is associated with strong prejudices; however, social status does work as mediator to a minor degree only. People with low self-efficacy in general (main "effect") and first-generation immigrants in particular (moderating "effect") have stronger prejudices. These results can be a starting point for developing measures to reduce prejudice and for the onset of a debate about the origins of prejudices against the unemployed.



Hutter, Christian (2020):

A new indicator for nowcasting employment subject to social security contributions in Germany.

In: *Journal for Labour Market Research* 54 (1), 10 S. DOI: 10.1186/s12651-020-00274-w.

*Abstract:*

Contrary to the number of unemployed or vacancies, the number of employees subject to social security contributions (SSC) for Germany is published after a time lag of 2 months. Furthermore, there is a waiting period of 6 months until the values are not revised any more. This paper uses monthly data on the number of people subject to compulsory health insurance (CHI) as auxiliary variable to better nowcast SSC. Statistical evaluation tests using real-time data show that CHI significantly improves nowcast accuracy compared to purely autoregressive benchmark models. The mean squared prediction error for nowcasts of SSC can be reduced by approximately 20%. In addition, CHI outperforms alternative candidate variables such as unemployment, vacancies and industrial production.

Iwasaki, Ichiro; Ma, Xinxin (2020):

Gender wage gap in China. A large meta-analysis.

In: *Journal for Labour Market Research* 54 (1), 19 S.. DOI: 10.1186/s12651-020-00279-5.

*Abstract:*

This paper performs a meta-analysis of 1472 estimates extracted from 199 previous studies to investigate the gender wage gap in China. The results show that, although the gender wage gap in China during the transition period has an impact that statistically significant and economically meaningful, it remains at a low level. It is also revealed that the wage gap between men and women is more severe in rural regions and the private sector than those in urban regions and the public sector. Furthermore, we found that, in China, the gender wage gap has been increasing rapidly in recent years.

Nchor, Dennis (2020):

Labour mobility as an adjustment mechanism to asymmetric shocks in Europe. Evidence from the Czech Republic, Hungary, Poland and Slovakia.

In: *Journal for Labour Market Research* 54 (1), 19 S. DOI: 10.1186/s12651-020-00282-w.

*Abstract:*

This paper assesses the nature and correlation of shocks in Visegrad countries and investigates the role of labour mobility in the process of adjustment to the effects of asymmetric shocks. Structural vector autoregression (SVAR) models are employed to assess the nature and correlation of shocks while dynamic cointegrated panel autoregressive distributed lag (ARDL) models are used to determine the role of labour mobility in the adjustment process. The dataset for the SVAR models is quarterly time series and covers the period 2000–2020. The dataset for the cointegrated panel ARDL models is annual and covers the period 2000–2019. The results show more asymmetries in external supply, domestic supply, demand and monetary shocks before the financial crisis. The findings also show that more symmetries occurred in Visegrad countries after the financial crisis in relation to external and domestic supply shocks. Asymmetries persisted with regard to demand and monetary shocks after the financial crisis. With labour mobility as an adjustment mechanism to asymmetric shocks, the paper finds that the capacity of labour mobility is very low. The percentage of net migration in the total population is less than 1% in the four countries compared to 15% in the United States. The size of the adjustment coefficients shows that it takes 3–5 years for countries to adjust to asymmetric shocks through labour mobility.

Reiter, Daniel; Palz, Mario Thomas; Kreimer, Margareta (2020):

Intergenerational transmission of economic success in Austria with a focus on migration and gender.

In: *Journal for Labour Market Research* 54 (1), 20 S. DOI: 10.1186/s12651-020-00272-y.

*Abstract:*

In this paper, we analyse the intergenerational transmission of economic success in Austria using the European Union Statistics on Income and Living Conditions 2011 dataset (EU-SILC 2011). Starting point of the investigation is a two-step estimation procedure, where we detect a significant positive intergenerational association between the economic situation of the parental household and educational attainments as well as gross hourly wages of their male and female descendants independently. Furthermore, we shed some light on the intergenerational social mobility black box by explaining the direct effect of the income situation of the parental generation on attainable wages of the child generation within the transmission system. It turns out that this effect is significantly underestimated when applying ordinary least squares regressions only, where the perceived socioeconomic status is taken exogenous. Finally, we apply instrumental variable quantile regressions to demonstrate that the direct intergenerational economic association between parents and their descendants is strongest for top earners. Alongside this proceeding, we introduce an alternative way to think about the impact of a bundle of additional intergenerational transmission channels like cognitive ability, noncognitive personal traits, and aspects of physical appearance on an empirical level. Overall, the findings of the paper, where special attention is paid to migrants, offer a better understanding on the intergenerational transmission of economic success mechanism and to what extent this process influences income persistence between generations.

Saucedo, Eduardo; Ozuna, Teofilo; Zamora, Hector (2020):

The effect of FDI on low and high-skilled employment and wages in Mexico. A study for the manufacture and service sectors.

In: *Journal for Labour Market Research* 54 (1), 15 S. DOI: 10.1186/s12651-020-00273-x.

*Abstract:*

This study analyzes the effect of Foreign Direct Investment (FDI) inflows on the employment and wages of low- and high-skilled employees in the manufacture and service sectors in Mexico. The study implements a quarterly panel dataset covering the 32 Mexican states from 2005 to 2018. The econometric model is estimated throughout Fixed-Effects (FE) and Panel Corrected Standard Errors (PCSE). Employment results indicate that an increase of FDI inflows into the manufacture sector creates a positive effect in low- and high-skilled employment. In the case of service sector, results are inconclusive across models for both categories of employment. In the case of wages, it is found that FDI inflows by the manufacture sector increase marginally in low-skilled wages and no statistical effect is captured in high-skilled wages. Lastly, in service sector, results indicate the effect of FDI inflows are inconclusive in the case of low-skilled and high-skilled wages.

Tavares, Marisa Fernanda Figueiredo (2020):

Across establishments, within firms. Worker's mobility, knowledge transfer and survival.

In: *Journal for Labour Market Research* 54 (1), 19 S. DOI: 10.1186/s12651-020-0267-y.

*Abstract:*

We analyze the recruitment strategies and the survival of newly created establishments that are affiliated with pre-established firms. For the new establishments, the existence of ports of entry as well as the importance of internal and external recruitment is assessed. Being affiliated with a pre-established firm may be a source of competitive advantage and improve the new plant's chances of survival as the parent firm may supply the newly created unit with expertise and firm-specific knowledge. In this research we suggest a channel for knowledge transfer that has been little addressed in previous literature: within firm and across establishments mobility of workers. As firm-specific knowledge is mainly embodied and non-tradable, we suggest that it can be successfully transferred to the new unit embodied in the workers that are internally recruited. We find that internally transferred workers, particularly skilled workers hired at high-rank jobs play an important role in improving the survival of new establishments.

Vehkasalo, Ville (2020):

Effects of face-to-face counselling on unemployment rate and duration. Evidence from a Public Employment Service reform.

In: *Journal for Labour Market Research* 54 (1), 14 S. DOI: 10.1186/s12651-020-00276-8.

*Abstract:*

In a Public Employment Service reform implemented in 2013, sixty Finnish municipalities experienced an involuntary employment office closure. The Government's objective was to replace traditional face-to-face employment counselling with modern online counselling and simultaneously generate savings in outlays. The reform created natural experiment circumstances that allowed us to estimate the aggregate causal effects of face-to-face counselling and advice. We estimated the effects of the reform on the unemployment rate and the average unemployment duration using municipality-level panel data and various panel data estimators. We found that while the reform had a barely discernible effect on municipal unemployment rates, it increased average unemployment durations by 2–3 weeks. Hence, face-to-face counselling and online counselling are not perfect substitutes in decreasing the length of unemployment spells. Consequently, the fiscal costs of the reform outweigh the fiscal benefits by a large margin.

## Specials

In memoriam: Reinhard Hujer.

[Obituary] (2020). In: *Journal for Labour Market Research* 54 (1), S. 1.

## Editorials

## Original Articles

Blake, Daniel; Gasman, Marybeth; Esmieu, Paola 'Lola'; Castro Samayoa, Andrés; Cener, Jillian (2020):

Culturally relevant study abroad for students of color. Lessons from the Frederick Douglass Global Fellowship in London.

In: *Journal of Diversity in Higher Education* 13 (2), S. 158–168. DOI: 10.1037/dhe0000112.

### Abstract:

Given the academic and labor market benefits of study abroad, closing gaps in study abroad participation is essential to educational equity. Students of color remain underrepresented in study abroad despite past efforts at diversification. Traditionally, study abroad opportunities for U.S. students have been designed for White audiences, and past research has indicated that a perceived disconnect between students of color's identities and the available programs has served as one of the barriers to their participation. This qualitative inquiry of the Frederick Douglass Global Fellowship, a 4-week study abroad initiative that was crafted for students from minority-serving institutions, investigates how the 10 participants' narratives of their experiences in the program illustrate principles of cultural relevance outlined in Museus' (2014) culturally engaging campus environments model. The marketing and framing of the program attracted students to apply for it, as many valued that it honored Frederick Douglass, presented the rare opportunity to study abroad with other students of color, and would prepare them to serve their communities more effectively upon returning. The instructors' pedagogical strategies validated students' identities and, in concert with the programming, presented numerous opportunities for students to learn more about themselves and others. The ethnic, regional, and institutional diversity within the cohort enhanced their experiences because of the abundant opportunities that it provided for cross-cultural engagement. These findings point to strategies that might be used in the development, promotion, and facilitation of study abroad programs for diverse audiences.

Byars-Winston, Angela; Leverett, Patrice; Benbow, Ross J.; Pfund, Christine; Thayer-Hart, Nancy; Branchaw, Janet (2020):

Race and Ethnicity in Biology Research Mentoring Relationships.

In: *Journal of Diversity in Higher Education* 13 (3), S. 240–253. DOI: 10.1037/dhe0000106.

### Abstract:

This case study investigated how mentors and mentees in biology experience and understand race and ethnicity in their research mentoring relationships. Semi-structured interviews were conducted with mentors (n = 23) and mentees (n = 15) who had participated in an undergraduate biology summer research opportunity program at a large Midwestern research-intensive university. Interview transcripts were coded using an inductive, thematic analysis. Themes that emerged are presented, describing both participants' experiences with and beliefs about race and ethnicity in research training contexts (e.g., mentoring relationships, lab and field experiences). Although similarities were identified, the experiences and beliefs of mentors and mentees were not always aligned. Implications of the findings for training interventions and institutional partnerships to enhance the effectiveness of research mentoring relationships are discussed, with the goal of positively impacting the educational success of students from historically underrepresented racial/ethnic groups in science career pathways.

Cadenas, Germán A.; Bernstein, Bianca L. (2020):

### Measuring college students' leadership engagement in advocacy.

In: *Journal of Diversity in Higher Education* 13 (3), S. 288–296. DOI: 10.1037/dhe0000131.

#### Abstract:

Evidence shows that college attainment gaps continue to persist in U.S. higher education across historically marginalized communities. Critical consciousness theory posits an antidotal framework for understanding marginalized students' experiences and educational outcomes. Researchers have identified critical reflection and action among core constructs of critical consciousness, and they have articulated the need for more scholarship seeking to understand the action dimension. Responding to this gap with curiosity about the role that leadership plays in sociopolitical action, we conducted 2 studies in the development of an instrument measuring college students' leadership engagement in advocacy. In Study 1, we developed a 10-item measure and tested its initial reliability and validity through exploratory factor analysis with 203 college students. In Study 2, we provided further validity evidence with a different, more diverse sample of 164 students using confirmatory factor analysis. Results suggest that the college students' leadership engagement in advocacy measure has a 1-dimensional structure and high internal reliability. We also provide evidence of convergent and discriminant validity in relation to measures of academic self-efficacy and advocacy outcome expectations. We discuss the utility of this measure for critical consciousness research and higher education practice aiming to close attainment gaps.

Crumb, Loni; Haskins, Natoya; Dean, Laura; Avent Harris, Janeé (2020):

### Illuminating social-class identity. The persistence of working-class African American women doctoral students.

In: *Journal of Diversity in Higher Education* 13 (3), S. 215–227. DOI: 10.1037/dhe0000109.

#### Abstract:

Scholars have argued that there is a silence related to social class status in educational literature. Consequently, the purpose of this phenomenological study was to develop an understanding of the educational experiences of working-class African American women doctoral students at predominantly White institutions and what factors influence their doctoral persistence. Black feminist thought and the social class worldview model informed the conceptualization of the study. Ten doctoral students completed individual 2-phase semistructured interviews. Three themes reflected students' educational experiences and doctoral persistence: (a) working-class virtues, (b) development of self-efficacy and resiliency, and (c) utilization of personal and academic support systems. Implications for practice, research, and advocacy that support the academic persistence of students from economically disadvantaged backgrounds are discussed.

Dingel, Molly J.; Sage, Starr K. (2020):

### Undergraduate students' perceptions of diversity over time.

In: *Journal of Diversity in Higher Education* 13 (2), S. 120–132. DOI: 10.1037/dhe0000119.

#### Abstract:

The United States is an increasingly diverse nation. It is therefore critical to cultivate an appreciation of racial difference. To bridge lay understandings with the reality of racial inequality, we must understand the ways citizens think about diversity and contextualize these within our current racial structure. In this paper, we interviewed 32 first- and second-year college students about their perceptions of diversity and, in the context of diversity, how well they fit in at their university. We reinterviewed 18 of these students 2 years later, when they were in their third or fourth year in college. We found that these students classified a wide range of traits under the concept of diversity. With respect to race, students exhibited a high degree of what Eduardo Bonilla-Silva describes as color-blind racism. Beyond that, we found that although students' attitudes about diversity were quite stable over these 2 years, there were interesting changes. Namely, students' introduction of learning styles and career goals in the second interviews reflects both the depth with which individuals' concepts of difference and diversity are deeply embedded in their social context, and that color-blind ideology is flexible enough to incorporate these context-specific frameworks.

Farmer, Laura Boyd; Robbins, Claire K.; Keith, Jennifer L.; Mabry, Challen J. (2020):

### Transgender and gender-expansive students' experiences of genderism at women's colleges and universities.

In: *Journal of Diversity in Higher Education* 13 (2), S. 146–157. DOI: 10.1037/dhe0000129.

#### Abstract:

Using interpretative phenomenological analysis, the researchers conducted a qualitative exploration of transgender and gender-expansive students' experiences of genderism while attending women's colleges and universities. Genderism is understood as prejudice or bias that results from a binary view of gender. Ten participants shared their experiences of genderism related to gender identity, gender role, gender expression, relationships, academics, residence life, and university policies and practices. Six themes are presented with support from participant extracts. Implications for faculty, staff, and administrators at women's colleges and universities are discussed, along with considerations for advocacy efforts.

Fernandez, Frank; Ro, Hyun Kyoung; Bergom, Inger; Niemczyk, Molly (2020):

### Is campus diversity related to Latinx student voter turnout in presidential elections?

In: *Journal of Diversity in Higher Education* 13 (3), S. 195–204. DOI: 10.1037/dhe0000127.

#### Abstract:

Latinx millennials are the least likely group to vote in U.S. presidential elections. However, college-educated Latinx millennials defy the trend. Does a diverse campus environment help explain Latinx students' voter turnout? In this article, we draw upon Hurtado, Alvarez, Guillermo-Wann, Cuellar, and Arellano's (2012) model of diverse learning environments to examine whether measures of campus diversity are related to Latinx students' odds of voting in the 2012 and 2016 elections. We use data from the National Study of Learning, Voting, and Engagement and logistic estimation to show that in both elections, student body diversity was positively related to Latinx student turnout among registered voters. We also find limited evidence that Latinx students who were registered to vote were more likely to cast ballots if they attended campuses with chief diversity officers.

Foste, Zak (2020):

### The enlightenment narrative. White student leaders' preoccupation with racial innocence.

In: *Journal of Diversity in Higher Education* 13 (1), S. 33–43. DOI: 10.1037/dhe0000113.

#### Abstract:

In a supposed colorblind, postracial society (Bonilla-Silva, 2013; Johnston-Guerrero, 2016), racism and White supremacy are located in only the most overtly bigoted White people. However, critical whiteness studies (Applebaum, 2010; Leonardo, 2009) challenge us to consider how all White people, regardless of intentions, contribute to the maintenance and production of Whiteness and White supremacy. Drawing on critical whiteness studies and guided by narrative inquiry, this article reports on the nature of students' cocurricular involvement and how these experiences shaped and informed their engagement with racism and Whiteness. The results illuminate what I call the enlightenment narrative, or a particular discursive strategy concerned with presenting oneself as a racially conscious and progressive White student leader. The narrative underscores how these White student leaders were more concerned with a presentation of the self as racially good and innocent than any meaningful critique of racism and White supremacy. Further, by situating themselves as racially enlightened and aware, participants located themselves outside of the problem of White supremacy, instead understanding themselves as educators for other White students. The results from this study offer an important contribution to the literature on Whiteness in higher education, as White student leaders, by virtue of their positions on campus, have a disproportionate influence on the institutional racial climate.

Garcia, Crystal E. (2020):

**Belonging in a predominantly White institution. The role of membership in Latina/o sororities and fraternities.**

In: *Journal of Diversity in Higher Education* 13 (2), S. 181–193. DOI: 10.1037/dhe0000126.

**Abstract:**

This qualitative, multiple case study explored the role of involvement in a particular university subculture, Latina/o sororities and fraternities, in how Latina/o college students develop and make meaning of their sense of belonging within predominantly White institutions. Findings address ways Latina/o college students described their institutional sense of belonging in addition to a discussion of five primary characteristics of belonging: where I have a role or responsibility, where people look like me, where I am valued and cared for, where my racial identity and culture is recognized and valued, and where I share interests or values with others. The results underscore the significance of the role of belonging in campus subcultures for Latina/o college students. Implications for research and practice are discussed.

Garcia, Crystal E.; Arnberg, Benjamin; Weise, Jessica; Winborn, Marit (2020):

**Institutional responses to events challenging campus climates. Examining the power in language.**

In: *Journal of Diversity in Higher Education* 13 (4), S. 345–354. DOI: 10.1037/dhe0000130.

**Abstract:**

This qualitative study explored administrative responses to local and sociopolitical events challenging campus climates at public research universities. Using critical discourse analysis, we examined the use of language as a form of power in publicly available documents addressing campus climate for diversity and inclusion at 31 U.S. institutions. Findings center 3 themes: underlying power in determining what to address; the power of language in perpetuating or deconstructing power, privilege, and oppression; and the distinction between espousing and enacting commitments to diversity, equity, and inclusion. Implications for research and practice are discussed.

Goldberg, Abbie E.; Smith, JuliAnna Z.; Beemyn, Genny (2020):

**Trans activism and advocacy among transgender students in higher education. A mixed methods study.**

In: *Journal of Diversity in Higher Education* 13 (1), S. 66–84. DOI: 10.1037/dhe0000125.

**Abstract:**

Trans students face institutional and interpersonal discrimination that renders them vulnerable to minority stress. Some trans students respond to minority stress, and perceptions of injustice on their campuses, via engagement in campus activism or advocacy. The current mixed methods study explores trans undergraduate and graduate students' explanations for engaging or not engaging in activism/advocacy and the types of activities in which they engage. It also examines, using logistic regression, what institutional, student, and trans-specific factors predict whether trans students engage in activism/advocacy. Qualitative analyses indicated that students engaged in a variety of activism and advocacy activities, both formal and informal. Students who engaged in activism/advocacy cited their personal values, sense of personal and community responsibility, desire for community, and opportunities for engagement in explaining their involvement. Students who did not engage emphasized other obligations and identities as taking precedence, visibility concerns, lack of connections to campus trans communities (e.g., as nonbinary students or students of color), burnout, mental health issues, activism not being a priority, and structural barriers. Logistic regression analyses indicated that attending a 4-year (vs. 2-year) institution and being an undergraduate (vs. graduate) student were related to a greater likelihood of activism/advocacy. A negative perception of campus climate was related to greater likelihood of activism/advocacy, but interacted with participants' perceptions of their institution's trans-supportiveness relative to other colleges, such that those who perceived a negative climate but also viewed their institution relatively positively in comparison to other colleges had the highest likelihood of engaging in activism/advocacy. Experiences of discrimination and being more out were also related to a greater likelihood of engagement.

Gonzales, Leslie D.; Terosky, Aimee LaPointe (2020):

**On their own terms. Women's pathways into and through academe.**

In: *Journal of Diversity in Higher Education* 13 (3), S. 274–287. DOI: 10.1037/dhe0000128.

**Abstract:**

In this qualitative study, we highlight the stories of a diverse group of 27 women academics who rebuffed many of academia's taken-for-granted pathways and approaches for success. To share their pathways and approaches, we offer a counternarrative composed of 3 themes: challenging linearity, refusing dualism, and rejecting individualism. Given our intersectional analysis, we show that even within a powerful counternarrative, there are differences, that these differences might best be understood in connection with gender, race, and class, and that these differences yield distinct experiences and outcomes among women.

Hansen, Kathryn D.; Dawson, Debra L. (2020):

**"We can do better". Community college faculty preparedness for teaching students with learning disabilities.**

In: *Journal of Diversity in Higher Education* 13 (4), S. 309–319. DOI: 10.1037/dhe0000142.

**Abstract:**

This study is a qualitative investigation of faculty members' perceptions of their preparedness to teach the growing number of students with learning disabilities (LDs) within the community college setting. As part of a larger mixed-methods study, we conducted semistructured interviews with 12 college faculty and used thematic analysis to identify 4 predominant themes. Findings revealed that the college faculty were generally underprepared for the task of teaching these students. There were significant gaps in faculty understanding of the definition of LDs, as well as misperceptions of the characteristics of students with LDs. These misconceptions may influence attitudes and actions toward student with LDs and interfere with teaching practices that adequately support students with LDs. In addition, faculty discussed the role of stigma for those labeled with LDs in terms of disclosure and asking for support. Faculty shared their willingness to accommodate students with LDs and their positive outlook toward the support available from Disability Services. Suggestions for improving the preparedness of college faculty to teach students with LDs are explored.

Harris, Jessica C. (2020):

**Multiracial faculty members' experiences with teaching, research, and service.**

In: *Journal of Diversity in Higher Education* 13 (3), S. 228–239. DOI: 10.1037/dhe0000123.

**Abstract:**

This study centers 26 Multiracial faculty members' voices to explore the research question: What are Multiracial tenured and tenure-track faculty members' experiences with teaching, research, and service within 4-year colleges and universities in the United States? Findings suggest that Multiracial faculty members use their research as a mechanism for social change, but that this research may also be invalidated by monoracial colleagues. Some Multiracial faculty also explored how they hold and use a unique (Multi)racial consciousness to approach their teaching and service work. Finally, some participants perceived that their Multiraciality made them less "threatening" to the institution, which tokenized them in different manners than what is currently known about tokenization for monoracial Faculty of Color. Findings from this research inform institutional policies and procedures that support Multiracial faculty members and contribute to institutional diversity and equity. The research also aims to disrupt the dominant ideology that race exists in strict monoracial-only categories; an ideology that may inform and be upheld by the existing literature on the experiences of Faculty of Color in the academy.



Hextrum, Kirsten (2020):

Segregation, innocence, and protection. The institutional conditions that maintain whiteness in college sports.

In: *Journal of Diversity in Higher Education* 13 (4), S. 384–395. DOI: 10.1037/dhe0000140.

*Abstract:*

Research into racism and college sports largely explores how universities profit off the undercompensated labor of predominately Black men in Division I football and basketball. This research frames college sports as an institution that dehumanizes, marginalizes, and exploits athletes of color (Beamon, 2014; Eitzen, 2016; Hawkins, 2010; Sack & Staurowsky, 1998). Yet to truly understand the bounds of systemic racism in college sports, studies must also interrogate how white people are elevated, centered, and rewarded at the expense of people of color. Drawing upon critical whiteness studies (Cabrera, 2012; DiAngelo, 2011; Leonardo, 2009), I analyzed 47 college athlete narratives and identified 3 interrelated themes—racial segregation, racial innocence, and racial protection—within higher education that protect whiteness. Findings outline how colleges recruit white athletes from predominately white communities who, as a result of their segregated environments, adopted underdeveloped notions of race and racism. Rather than reeducating athletes upon arrival, institutions further racial segregation, innocence, and protection. Ultimately, these processes have allowed white athletes to dodge their role in racism and avoid racial justice responsibilities.

Hsieh, Betina; Nguyen, Huong Tran (2020):

Identity-informed mentoring to support acculturation of female faculty of color in higher education. An Asian American female mentoring relationship case study.

In: *Journal of Diversity in Higher Education* 13 (2), S. 169–180. DOI: 10.1037/dhe0000118.

*Abstract:*

Female faculty of color need mentoring opportunities that recognize, validate, and nurture their perspectives and experiences as assets—rather than liabilities—to their work. Among studies of faculty of color, there have not been specific studies focused on intragroup mentoring for Asian American female faculty. This collaborative autoethnographic study seeks to explore and unpack the complexities of intragroup mentoring for Asian American female faculty through the examination of a 6-year faculty mentoring relationship between two Asian American female faculty members in the teacher education department of a large public university. The authors examine how intersections and divergences related to their experiences as Asian American women in academia impacted their relationship, their acculturation processes in academia, and their subsequent successful advancements in rank over the course of their mentoring relationship. We argue that drawing from shared elements of our identities, and an awareness of the ways in which our experiences as Asian American women shaped our journeys in academia, helped to foster an enduring relationship that strengthens our work as faculty members. We also explore how differences in our identities (e.g., United States vs. foreign-born adult immigrant; Vietnamese American vs. Taiwanese American) and positionalities (e.g., first Asian American in the department, entering as nontenure track vs. tenure-track entry in a department with several established Asian American faculty) impacted our journeys, challenged us, and enriched our relationship to illuminate a more nuanced understanding of Asian Americans in academia. Through our experiences, we suggest how identity-informed mentorship can be a powerful tool to support acculturation in the academy, particularly for female faculty of color.

Johnson, Matthew R.; Peacock, Jennifer (2020):

Breaking the bubble. Recent graduates' experiences with ideological diversity.

In: *Journal of Diversity in Higher Education* 13 (1), S. 56–65. DOI: 10.1037/dhe0000114.

*Abstract:*

This study reports on longitudinal qualitative data of 17 recent college graduates' experiences with ideological diversity. Findings indicate that recent graduates recognize their ideological bubbles, take steps to break out of them, experience work as an important context for ideological engagement, and suggest their collegiate experiences underprepared them to engage with those who hold differing ideologies.

Jones, Veronica (2020):

Challenging race neutral rhetoric. Black student leaders' counternarratives of racial salience in PWI student organizations.

In: *Journal of Diversity in Higher Education* 13 (1), S. 23–32. DOI: 10.1037/dhe0000105.

*Abstract:*

On the basis of histories of exclusion of people of color, race neutrality is often the dominant rhetoric at predominantly White institutions. In asserting the goal of diversity, institutions often provide rhetoric on the inclusion of differences while masking the existence of social inequities and racist practices lived by students of color. The author of this study used case study methodology to operationalize the multidimensional model of racial identity and to create opportunities for Black student leaders to reflect on the situational and stable components of their racial beliefs. Through observations within traditional White organizations as well as Black student organizations, Black student leaders provided counternarratives that evidenced the situational component of racial salience within their interactions. Findings reveal dominant student organizations as White property rights and challenge institutional members to engage in critical reflections on the prevalence of racist ideologies amid diversity rhetoric that intends to keep such norms hidden.

Kenner, Kylie Alisa (2020):

A community college intervention program. The affordances and challenges of an educational space of resistance.

In: *Journal of Diversity in Higher Education* 13 (1), S. 85–95. DOI: 10.1037/dhe0000116.

*Abstract:*

Tuck has argued that educational research and practice intending to support disenfranchised communities continue to frame individuals from a damaged-centered perspective, in that students are articulated as broken and in need of mending by the institution; instead, research should capture the complexity. Focusing instead on students' identities and spaces in which those identities can be fostered, new opportunities emerge for students to be framed as agentive and complex instead of simply underprepared. This article utilizes Bakhtin's concept of self-authorship and Holland, Lachocotte, Skinner, and Cain's concept of figured worlds to explore the influence of a community college intervention program that sought to foster thoughtful and agentive conceptions of students' identities. A unique feature of the focal program is that students are asked to leverage their earlier trauma to find success in college. Data include interviews with focal students and their instructors, classroom observations, theoretical memos, and curricular artifacts. Findings indicate that the program offered students an important space to use written and spoken narratives to make sense of earlier educational experiences and as a conduit to construct identities as college students in relation to those experiences. This article concludes with implications for stakeholders envisioning the construction, revision, or continued success of transformative educational spaces for underserved college students.

Kodama, Corinne M.; Dugan, John P. (2020):

Understanding the role of collective racial esteem and resilience in the development of Asian American leadership self-efficacy.

In: *Journal of Diversity in Higher Education* 13 (4), S. 355–367. DOI: 10.1037/dhe0000137.

*Abstract:*

Using an ethnically diverse, national sample, this study used structural equation modeling to investigate the development of leadership self-efficacy (LSE) among 2,223 Asian American college students by focusing on the influences of racial identity (using the construct of collective racial esteem; CRE) and resilience. Results demonstrated a strong influence of resilience on LSE, and of CRE on resilience. This study's findings highlight the importance of attending to the influence of racial identity on leadership development for Asian Americans, a group for which college educators often overlook the impact of race on college experiences and outcomes. Implications for practice include: (a) understanding the role of psychological constructs on leadership development; (b) the importance of racial identity in developing resilience; and (c) the need to integrate racial identity and resilience in leadership education to provide a holistic approach for Asian American students' development.

Lott, Joe; Love, Christian (2020):

**Undergraduate men of color experiences with the 2016 Presidential election.**

In: *Journal of Diversity in Higher Education* 13 (3), S. 205–214. DOI: 10.1037/dhe0000136.

**Abstract:**

The purpose of this research is to understand how undergraduate men of color at a predominantly White institution experienced the 2016 Presidential election. This election was one that evoked much interest, tension, and divisiveness across many communities. Data for this study come from 15 men of color who were interviewed over a two-month period postelection. Drawing from qualitative methods, we found that undergraduate men of color were concerned about the future of the United States and its policies, felt like an outsider on campus, experienced verbal assaults, and felt hopelessness and despair. Findings for this study provide new insights about how undergraduate men of color experienced the 2016 Presidential election. Implications for theory and practice are offered.

McCallen, Leigh S.; Johnson, Helen L. (2020):

**The role of institutional agents in promoting higher education success among first-generation college students at a public urban university.**

In: *Journal of Diversity in Higher Education* 13 (4), S. 320–332. DOI: 10.1037/dhe0000143.

**Abstract:**

Ensuring success in public higher education among underrepresented students is integral to social equity in the United States today. The current research contextualizes proximal and structural characteristics shaping the opportunities of underrepresented students by drawing on multidisciplinary theoretical frameworks to consider the influence of social capital on the success of first-generation college students in the context of a large, public urban university. We collected survey and interview data with first-generation college students enrolled at three 4-year campuses of the City University of New York to analyze the association between student outcomes and perceived social support from institutional and protective agents. Convergent qualitative and quantitative findings indicate institutional agents, specifically college faculty, play a significant role in first-generation students' college success by imparting intellectual capital and institutional resources critical to navigating the higher education environment. We discuss implications for practitioners working with first-generation college students and for institutional change to better support these students at broad-access public colleges.

Mills, Kristen J. (2020):

**"It's systemic". Environmental racial microaggressions experienced by Black undergraduates at a predominantly White institution.**

In: *Journal of Diversity in Higher Education* 13 (1), S. 44–55. DOI: 10.1037/dhe0000121.

**Abstract:**

Limited studies of Black students' experiences of racial microaggressions specifically address environmental racial microaggressions. Environmental racial microaggressions have no apparent offender, affect all persons of color in a given social setting, and are more evident at a systemic or environmental level such as in education, government, and the economy (Nadal, Skolnik, & Wong, 2012; Sue et al., 2007). Using resilience theory as a framework, this study investigates environmental racial microaggressions experienced by Black college students attending a predominantly White institution (PWI). Four focus group interviews were conducted with Black college students attending a large Midwestern PWI. Findings indicated that students experienced six types of environmental racial microaggressions in various contexts at the university: (a) segregation, (b) lack of representation, (c) campus response to criminality, (d) cultural bias in courses, (e) tokenism, and (f) pressure to conform. Gender differences emerged where only women described experiencing cultural bias in courses and only men spoke explicitly about the lack of representation of persons of color in leadership positions within campus employment. Implications for future research and practice are discussed.

Ogunyemi, Dotun; Clare, Camille; Astudillo, Yaritzy M.; Marseille, Melissa; Manu, Eugene; Kim, Sun (2020):

**Microaggressions in the learning environment. A systematic review.**

In: *Journal of Diversity in Higher Education* 13 (2), S. 97–119. DOI: 10.1037/dhe0000107.

**Abstract:**

Microaggressions entail everyday brief, low-intensity events that convey negative messages toward marginalized groups. A systematic review of the literature on microaggressions in the learning environment of higher education was performed from 1998 to 2018 using a modified PRISMA outline. Forty articles on racial microaggressions were categorized as microaggression experiences of all races/ethnicity (27.5%), microaggression experiences of minorities (22.5%), difficult racial dialogues (10%), coping strategies for microaggressions (17.5%), and system interventions strategies (22.5%). Microinsults were reported in 82.5%, microinvalidations in 4.5%, microassaults in 20%, and institutional microaggressions in 27.5%. Microaggressions were prevalent and “invisible” in colleges with minority students seemingly worn down by ongoing strategies used to confront the inherent associated stresses. Difficult racial dialogues were characterized by intense emotions in both professors and students that interfered with successful learning experiences. Coping strategies that correlated positively with microaggression and psychological stress included disengagement, cultural mistrust, stigma for seeking psychological help, alcohol use, and intolerance of uncertainty. Factors tending to ameliorate microaggression and psychological stress included engagement, dispositional forgiveness, help-seeking attitudes, self-efficacy in coping with daily hassles, and social connectedness. Political activism was helpful in Latinx, but exacerbated microaggression related stress in African American students. Multicultural curricula were associated with increased racial awareness. Innovative intervention strategies included brief video interventions and utility of mobile apps. Microaggressions are associated with ongoing major negative impact on the learning environment. By ameliorative coping mechanisms and institution intervention strategies, the associated toll and stresses from microaggressions may be reduced.

Ott, Molly; McTier, Terrence S. (2020):

**Faculty attitudes toward college students with criminal records.**

In: *Journal of Diversity in Higher Education* 13 (4), S. 297–308. DOI: 10.1037/dhe0000138.

**Abstract:**

This inquiry explores university faculty attitudes toward college students with criminal records to better understand whether professors view them differently than the general student body. Utilizing a framework informed by the concept of stigma and existing research on individuals with criminal records in traditional higher education settings, we analyzed faculty responses to nine scenarios related to their encounters with students on campus. The 229 survey participants had relatively supportive reactions, but their views were significantly more negative about college students with criminal records compared with other students. Faculty exhibited particularly stigmatizing attitudes toward college students convicted of serious violent offenses.

Palmer, Robert T.; Freeman, Sydney (2020):

**Examining the perceptions of unsuccessful leadership practices for presidents at historically Black colleges and universities.**

In: *Journal of Diversity in Higher Education* 13 (3), S. 254–263. DOI: 10.1037/dhe0000120.

**Abstract:**

Data from this current study emerged from a larger study on contemporary leadership practices at historically Black colleges and universities (HBCUs). One of the themes that emerged focused on unsuccessful leadership practices among HBCU presidents. Although this article contextualizes this theme, it is important to underscore that it is not the intent of the authors to approach this topic from a deficit based-perspective but rather an asset-based one. Specifically, through the findings, discussion, and implications, we hope that this article will promote and facilitate successful practices of leadership among HBCU presidents, which will help to contribute to the survival and sustainability of these noble institutions.

Parker, Eugene T.; Trolan, Teneil L. (2020):

### Student perceptions of the climate for diversity. The role of student–faculty interactions.

In: *Journal of Diversity in Higher Education* 13 (4), S. 333–344. DOI: 10.1037/dhe0000132.

#### Abstract:

This study uses data from the 2014 wave of the Student Experience in the Research University (SERU) survey to examine the association between students' interactions with and perceptions of faculty in college and their perceptions of the climate for diversity at research universities. Results revealed that frequently communicating with a faculty member by e-mail or in person, experiencing equitable and fair treatment by faculty members, and being satisfied with access to faculty members outside of class were positively associated with positive perceptions of the climate for diversity; while engaging in creative work with a faculty member, engaging in research activities with a faculty member, working with faculty members on activities other than coursework, talking with a faculty member outside of class about issues and concepts derived from a course, and knowing a professor well enough to ask for a recommendation letter were negatively associated with positive perceptions of the climate for diversity. Additionally, findings from this study suggest that these relationships may be moderated by students' sex, race/ethnicity, and social class.

Perez, Rosemary J.; Robbins, Claire K.; Harris, L. Wesley; Montgomery, Cheryl (2020):

### Exploring graduate students' socialization to equity, diversity, and inclusion.

In: *Journal of Diversity in Higher Education* 13 (2), S. 133–145. DOI: 10.1037/dhe0000115.

#### Abstract:

To better prepare graduate students to address societal problems, scholars have asserted the need to foster students' abilities to engage across differences in social identities, values, and beliefs. Yet few studies have examined whether and how graduate students learn about equity, diversity, and inclusion (EDI) during their training. Acknowledging this void, our critical constructivist comparative case study explored how 44 graduate students in an array of disciplines and fields at 2 institutions were socialized to EDI across their experiences. Our findings indicate that academic departments rarely discuss EDI, and when they do, they highlight the need for increased compositional diversity. Participants' experiences with faculty, in courses, in departmental gatherings, and in lab/research settings communicated the relevance or lack thereof of EDI to students' disciplines and fields. Because EDI was often omitted from discussions in students' departments, multiple participants with minoritized identities expressed feeling marginalized and tokenized, if not overtly targeted, based on their identities. To supplement their learning about EDI and to find additional sources of support, many students participated in programs/courses through their graduate college or engaged with identity-centered student organizations. Our research illuminates the need for academic departments to consistently provide intentional opportunities for individuals to learn about EDI in their disciplines and fields if we are to create inclusive learning environments and prepare graduate students to contribute to a complex and interdependent global society.

Schmidt, Christa K.; Earnest, David R.; Miles, Joseph R. (2020):

### Expanding the reach of intergroup dialogue. A quasi-experimental study of two teaching methods for undergraduate multicultural courses.

In: *Journal of Diversity in Higher Education* 13 (3), S. 264–273. DOI: 10.1037/dhe0000124.

#### Abstract:

Colleges and universities are closely examining their practices for engaging campus constituents in multicultural education. One method that has received increased attention is the use of intergroup dialogue (IGD). Although there is mounting research evidence of the effectiveness of IGD in meeting the goals and objectives of multicultural education, there remains a need to demonstrate its ability to be integrated into an existing curriculum and what specifically it adds to typical methods for teaching about diversity. The current study compared undergraduate diversity-topic courses that were taught with and without an IGD component integrated into the existing curriculum. One hundred twelve undergraduate students enrolled in 1 of 5 courses completed survey measures at the beginning and end of the semester. Results from split-plot ANOVAs demonstrated that students enrolled in courses with IGD showed greater increases over the course of the semester on measures of racial oppression awareness, openness to diversity, and empathic feeling and acting as an ally than students enrolled in courses without the IGD component. Further, main effects demonstrated that students enrolled in both course formats had increased scores on awareness of systems of oppression and privilege as well as anxiety and

lack of multicultural self-efficacy over the course of the semester. These findings add to the growing literature on the effectiveness of IGD and extend the generalizability to campuses integrating IGD teaching methods to an existing curriculum.

Wolniak, Gregory C.; Mitic, Radomir R.; Engberg, Mark E. (2020):

### Diverse pathways to graduate education attainment.

In: *Journal of Diversity in Higher Education* 13 (4), S. 368–383. DOI: 10.1037/dhe0000141.

#### Abstract:

The study contributes new evidence on the factors associated with graduate education outcomes within the first few years of completing college, with particular attention on the moderating influence of racial/ethnic identity. Drawing on Education Longitudinal Study, 2002–2012 data, analyses examined how students' ascribed, entering college characteristics, and undergraduate educational experiences are associated with subsequent progression into and through graduate education across racial/ethnic groups. The results uncovered important evidence that graduate attainment is highly conditional on, or moderated by, racial/ethnic identity. The study's findings improve our understanding of the factors most critical for increasing the likelihood of graduate education attainment among diverse student populations.

## Specials

Worthington, Roger L.; Stanley, Christine A.; Smith, Daryl G. (2020):

### Advancing the professionalization of diversity officers in higher education. Report of the Presidential Task Force on the Revision of the NADOHE standards of professional practice.

[Society Report]. In: *Journal of Diversity in Higher Education* 13 (1), S. 1–22. DOI: 10.1037/dhe0000175.

#### Abstract:

The National Association of Diversity Officers in Higher Education (NADOHE) has developed and approved standards of professional practice for diversity officers in higher education (Worthington, Stanley, & Lewis, 2014). A more recent, revised set of standards have been adopted by NADOHE (2020) to reflect the rapid evolution of the field, and update existing standards to further promote the advancement of the professionalization of diversity officers in higher education. This article provides a summary of work on the development of the revised NADOHE Standards of Professional Practice, along with some of the most significant advancements in the field of study to encompass a broad range of knowledge and practices reflected in the work of diversity officers across differing institutional contexts. Understanding that diversity is an imperative for excellence requires linking diversity to an institution's mission. Standards of professional practice are useful guideposts to specify and clarify the flexibility and scope of work of diversity officers, and inform administrators and institutions in aligning the work of diversity officers with the rapidly advancing characteristics of the profession. The standards account for variations in the organizational structures, fiscal resources, professional backgrounds, specialized expertise, and scope of administrative authority that exist across institutional contexts.

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## Editorials

Chang, Mitchell James (2020):

Editor's Comment.

[Editorial]. In: *Journal of Higher Education, The* 91 (5), S. 651–652. DOI: 10.1080/00221546.2020.1780089.

## Original Articles

Anderson, Tim (2020):

News Media Representations of International and Refugee Postsecondary Students.

In: *Journal of Higher Education, The* 91 (1), S. 58–83. DOI: 10.1080/00221546.2019.1587977.

*Abstract:*

Postsecondary institutions in the global north have rapidly internationalized, driven mainly by the proliferation of international students and responses to these changing demographics. This internationalization has captured attention across various platforms, including increased media focus directed toward these students and the primary and ancillary influences of their participation in PSIs and surrounding communities. The project explored in this paper examines this phenomenon by connecting internationalization of higher education research with insights from critical media studies and framing theory to investigate news media representations of international and refugee students' participation in Canadian universities and colleges. A critical thematic analysis was performed on 391 news media texts published between 2000 and 2017. Findings reveal the Canadian news media's tendency to construct issues related to international students and internationalization into one or a combination of four broad macrothemes: (1) Canada as benevolent and ideal; (2) international students and internationalization as commodified assets; (3) international students and internationalization as threats; and (4) the strategic neutrality of data.

Arellano, Lucy (2020):

Capitalizing Baccalaureate Degree Attainment. Identifying Student and Institution Level Characteristics that Ensure Success for Latinxs.

In: *Journal of Higher Education, The* 91 (4), S. 588–619. DOI: 10.1080/00221546.2019.1669119.

*Abstract:*

Baccalaureate degree completion is essential for future development as a nation. Latinxs are the largest minority group in the country and by 2050 nearly one out of every three individuals will be of Latinx descent. While Latinx enrollment may increase, the proportion completing college is not comparable. This study explored the pre-college student characteristics and institutional environments through a capital theoretical perspective (Bourdieu, 1986) that fosters degree attainment measured six years after initial enrollment. The national (459 institutions), longitudinal study of 15,745 Latinx students

quantitatively examined the impact of differing institutional contexts while accounting for individual characteristics. High school GPA and the number of college applications submitted are positive key factors while concerns about financing college have a negative effect at the student-level on predicting Latinx six year degree attainment. The institutional graduation rate and compositional diversity positively influence graduation. Results further illustrate that campus context matters. Disaggregated results revealed distinct predictors among each of the subgroups. Implications inform postsecondary institutional practices by highlighting mechanisms of inequity embedded within the system of higher education and how to enact transformational change.

Baker, Dominique J.; Skinner, Benjamin T.; Redding, Christopher H. (2020):

### Affirmative Intervention to Reduce Stereotype Threat Bias. Experimental Evidence from a Community College.

In: *Journal of Higher Education, The* 91 (5), S. 722–754. DOI: 10.1080/00221546.2019.1650582.

#### Abstract:

At all levels of education, the racial achievement gap in performance between Black and Latino students and their White peers stubbornly persists. While the causes of this gap are numerous and interrelated, one theory posits that students from underrepresented racial groups may face stereotype threat, meaning that fear of failing and thereby fulfilling negative group stereotypes leads to anxiety and suboptimal cognitive performance. Though low-cost value affirmation interventions have been shown to reduce achievement gaps in some classroom settings, these findings have not been consistently replicated. In this study, we test the efficacy of this intervention among a new sample of students enrolled in a community college in the Midwest. At the beginning of the fall 2016 semester, students in English courses (N = 1,115 in 59 course sections) were randomly assigned to short writing exercises that were either self-affirming or neutral. Using administrative data collected at the end of the term, we compared treatment and control students on a range of outcomes that included course grade, overall GPA, and course persistence. Overall, we find little evidence of a positive effect of this one-time affirmation of social identity. Moderation analyses, however, show heterogeneous effects across course sections, suggesting that the classroom setting may play a role in the interaction between social identity and student outcomes.

Bell, Elizabeth (2020):

### The Politics of Designing Tuition-Free College: How Socially Constructed Target Populations Influence Policy Support.

In: *Journal of Higher Education, The* 91 (6), S. 888–926. DOI: 10.1080/00221546.2019.1706015.

#### Abstract:

As tuition-free college policies spread rapidly across the states, an increasingly important policy debate has emerged regarding the optimal policy design of tuition-free college. However, existing scholarly evidence has focused almost exclusively on student outcomes, leaving the political decision-making processes among the public and policymakers unexamined. In this article, I leverage a nationally representative survey experiment and policy design theory to explore the power of social constructions of target populations in shaping a cornerstone of politically feasible tuition-free college—public opinion. In line with theoretical expectations, the analysis reveals that including a minimum high school GPA requirement increased support for tuition-free college, while targeting benefits to low-income families reduced perceptions of fairness, relative to a universal policy design. The findings also reveal that the effect of policy design on public perceptions of tuition-free college is moderated by region and age. Together, these findings reveal how a nationally representative sample of the public view the key policy design debates on tuition-free college and demonstrate the importance of social constructions of target populations for the study of higher education policy processes.

Bloom, Quinn; Curran, Michaela; Brint, Steven (2020):

### Interdisciplinary Cluster Hiring Initiatives in U.S. Research Universities. More Straw than Bricks?

In: *Journal of Higher Education, The* 91 (5), S. 755–780. DOI: 10.1080/00221546.2019.1688615.



*Abstract:*

Over the last three decades, interdisciplinary cluster hiring programs have become popular on research university campuses as an approach to fostering interdisciplinary collaboration. These programs have not yet been rigorously evaluated across multiple institutions and multiple thematic fields. The paper reports the results of a survey of 199 cluster hires across 20 research universities, supplemented by interviews with 18 administrators and cluster leads at nine universities. Against the expectation of advocates, the survey responses indicate that cluster hire groups are often loosely organized and members do not typically spend much time collaborating with others in their group. Both the existence of common research agendas and the participation of individuals capable of translating across disciplinary languages are associated with higher levels of satisfaction with the collaborative environment of clusters, net of covariates, as are adequate lab spaces. Even if they do not typically lead to high levels of collaboration, clusters can, in the best case scenarios, help universities to align with emerging research areas in ways that departments may have difficulty doing.

Bottia, Martha Cecilia; Stearns, Elizabeth; Mickelson, Roslyn Arlin; Moller, Stephanie; Jamil, Cayce (2020):

### The Importance of Community Colleges in Students' Choice to Major in STEM.

In: *Journal of Higher Education, The* 91 (7), S. 1116–1148. DOI: 10.1080/00221546.2020.1742032.

*Abstract:*

This article investigates whether attending a community college is related to an increase in the number of students majoring and graduating with degrees in science, technology, engineering and mathematics (STEM) at four-year colleges. We follow a longitudinal sample of students in North Carolina from middle school through college graduation, including some who attended a community college. Our multilevel models indicate that for our sample of students, who attended a four-year institution and declared a major within 6 years of high school graduation, ever attending a community college and/or starting post-secondary education at a community college have a significant positive relationship with their likelihood of declaring and graduating with a STEM major. Results hold true even after controlling for sample self-selection through propensity score matching techniques. Our findings also show that the benefits of community college attendance on students' likelihood of declaring and graduating with a STEM major are not restricted to only low-SES students. Overall, this study supports the notion that two-year colleges could work as means of helping push students from diverse socioeconomic backgrounds into STEM.

Brown, Michael; Klein, Carrie (2020):

### Whose Data? Which Rights? Whose Power? A Policy Discourse Analysis of Student Privacy Policy Documents.

In: *Journal of Higher Education, The* 91 (7), S. 1149–1178. DOI: 10.1080/00221546.2020.1770045.

*Abstract:*

The proliferation of information technology tools in higher education has resulted in an explosion of data about students and their contexts. Yet, current policies governing these data are limited in their usefulness for informing students, instructors, and administrators of their rights and responsibilities related to data use because they are based on antiquated conceptions of data and data systems. To understand how data privacy policies conceptualize and represent data, privacy, student agency, and institutional power, we conducted a policy discourse analysis of 151 university policy statements related to student information privacy and the responsible use of student data from 78 public and private post-secondary institutions in the U.S. Three common discourses emerged: educational records are static artifacts, privacy solutions are predicated upon institutional responsibility and student agency, and legitimate educational interest in data are institutionally defined and broadly applied. We explore the assumptions, biases, silences, and consequences of these discourses and offer counter-discourses to begin a foundation for the development of privacy policies in a new data age.

Chan, Hsun-Yu; Wang, Xueli (2020):

**Reconciling Intent with Action. Factors Associated with the Alignment between Transfer Intent and Coursework Completion Patterns among Two-Year College Students in STEM.**

In: *Journal of Higher Education, The* 91 (7), S. 1087–1115. DOI: 10.1080/00221546.2020.1740533.

**Abstract:**

In this study, we explored the alignment between initial transfer intent and subsequent course-completion patterns among 1,668 first-time STEM-aspiring students at two-year institutions. Using survey and transcript data, we conducted latent profile analysis and subsequent path analysis that revealed five distinct course-completion patterns: Trailing/Time-Out, Non-transfer-Focused, Transfer: STEM Concentrated, Transfer: Humanity/Social Science Concentrated, and Transfer: Developmental Education Concentrated. Students' math and science self-efficacy, academic engagement, and transfer-oriented interactions moderated the alignment between initial transfer intent and later course completion patterns. Based on the findings, we discuss the importance of cultivating strong academic self-efficacy and building effective advising practices to help students actualize their transfer intent.

Cuevas, Stephany (2020):

**Ley de la Vida. Latina/o Immigrant Parents Experience of Their Children's Transition to Higher Education.**

In: *Journal of Higher Education, The* 91 (4), S. 565–587. DOI: 10.1080/00221546.2019.1647585.

**Abstract:**

Using an emerging model of family engagement in higher education and the concept of parental role construction as a framework, this study presents the Ley de la Vida (Law of Life) process to explore how Latina/o immigrant parents experience their children's transition to higher education. Centered on the experiences of 15 parents of first-generation Latina/o students, the study illuminates how parental experiences of their children's transition and new learning ultimately shape their supportive behaviors. Findings suggest that parents interact with colleges and universities both directly and indirectly—as their children transition to a college context, their own identities as parents transition and they re-construct their parental roles. This transition is conflicting for parents—while they are extremely proud of their children for going to college, they also experience frustration, sadness, and depression. Findings have important implications for the potential of institutions and families to work together to improve the academic outcomes of first-generation Latina/o undergraduate students.

Douglas, Daniel; Salzman, Hal (2020):

**Math Counts. Major and Gender Differences in College Mathematics Coursework.**

In: *Journal of Higher Education, The* 91 (1), S. 84–112. DOI: 10.1080/00221546.2019.1602393.

**Abstract:**

Mathematics is an important and hotly contested aspect of U.S. postsecondary education. Its importance for academics and careers and the extent and impact of math achievement disparities are all subject of longstanding debate. Yet there is surprisingly little research into how much and what types of mathematics courses are taken by U.S. undergraduates and the extent of math achievement differentials among students. This article advances the understanding of math course taking by developing course-taking metrics for a nationally representative cohort of bachelor's graduates. Using NCES transcript data to construct consistent measures of mathematics and quantitative course taking, our analysis finds large variability both within and between STEM/non-STEM majors and a large population of non-STEM graduates earning mathematics credits comparable to their peers in STEM fields. Mathematics course taking differs substantially from course taking in other subjects. We also find that often-observed gender differentials are a function of major, not gender, with females in the most mathematics-intensive programs earning as many or more mathematics credits than their male peers.

Ferrare, Joseph J.; Miller, Julia M. (2020):

**Making Sense of Persistence in Scientific Purgatory. A Multi-Institutional Analysis of Instructors in Introductory Science, Technology, Engineering, and Mathematics (STEM) Courses.**

In: *Journal of Higher Education, The* 91 (1), S. 113–138. DOI: 10.1080/00221546.2019.1602392.

**Abstract:**

Prior research points to a variety of factors that influence student persistence in science, technology, engineering, and mathematics (STEM) degree programs. Little attention, however, has been given to how STEM faculty understand these processes and subsequently frame their role in supporting students. To address this gap, this article reports on an analysis of the interpretive frames through which instructors of introductory STEM courses make sense of the factors that influence student persistence and success in STEM degree programs. Interview data were collected from 73 instructors of introductory STEM courses at six predominantly white institutions of higher education across the United States. The coding of interviews included concept and theoretical coding using cluster analysis, multidimensional scaling, and correspondence analysis. The coding process identified six unique interpretive frames through which instructors made sense of student persistence. These frames varied greatly in the ways that students were perceived to have agency in shaping their persistence and success in STEM, as well as the steps that can be taken to ameliorate social inequalities in these outcomes. The findings thus have important implications for how researchers and program designers frame strategies that can support student persistence outcomes in STEM degree programs.

Fosnacht, Kevin; Gonyea, Robert M.; Graham, Polly A. (2020):

**The Relationship of First-Year Residence Hall Roommate Assignment Policy with Interactional Diversity and Perceptions of the Campus Environment.**

In: *Journal of Higher Education, The* 91 (5), S. 781–804. DOI: 10.1080/00221546.2019.1689483.

**Abstract:**

A heterogeneous student body is valued in part because diverse interactions among students help create educated and competent citizens and promote learning and development. Campus housing is a primary setting for diverse interactions as students navigate living with individuals who differ from themselves. This study investigated how the roommate assignment process influences interactional diversity and perceptions of the campus environment for first-year students living on campus, and if these relationships differ by race/ethnicity and national origin. On average, students whose roommates were assigned by the institution (as opposed to choosing their own roommates) did not interact with diverse others more often. At the same time, however, Asian, Black and multiracial students who were assigned roommates by the institution perceived a substantially less welcoming campus environment than their same-race peers who chose their roommates. This difference was not observed for White students.

Gándara, Denisa (2020):

**How the Sausage is Made. An Examination of a State Funding Model Design Process.**

In: *Journal of Higher Education, The* 91 (2), S. 192–221. DOI: 10.1080/00221546.2019.1618782.

**Abstract:**

Extant research neglects to examine how policymakers make decisions regarding funding allocations to higher education institutions. This case study analyzed the policy process surrounding the development of one model for funding higher education in Colorado. The study is anchored in a theory of policy design, which considers how groups targeted by a policy are socially constructed, as well as their levels of political power. Drawing on interviews with 19 policy actors involved in funding-model development and 144 documents, findings reveal that institutions' levels of political power are critical, but not deterministic, in explaining allocations under the new model. Access institutions benefited most from the state's new funding model, primarily due to one policy entrepreneur's interest in linking funding more tightly to higher education institutions' enrollments. Research institutions used their political power to repel burdens that would have been imposed through the funding-model bill. Finally, racial/ethnic minority students were ultimately denied explicit funding benefits. This outcome resulted from legislators' overt efforts to avoid addressing race in this policy process. This study contributes to literature on higher education finance, policy, and politics by illuminating how target groups' political power and social constructions influence decisions surrounding state funding for public colleges and universities.

Garibay, Juan Carlos; Herrera, Felisha A.; Johnston-Guerrero, Marc P.; Garcia, Gina A. (2020):

### Campus Racial Incidents, Hate Crimes, and White Male and Female Students' Racial Attitudes.

In: *Journal of Higher Education, The* 91 (1), S. 1–31. DOI: 10.1080/00221546.2019.1596651.

#### Abstract:

Despite popular claims that the United States has reached a “post-racial” era—one in which race no longer matters for determining one’s life chances—college students continue to have strong views toward whether or not racial discrimination is still a major problem in this country. Utilizing multilevel modeling on data merged from the Cooperative Institutional Research Program’s (CIRP) 2005 Freshman Survey (TFS) and 2009 College Senior Survey (CSS), as well as the Integrated Postsecondary Educational Data System (IPEDS) and the Office of Postsecondary Education Campus Safety and Security database, this study examined individual and institutional predictors of white male and female college students’ senior-year views on whether racial discrimination is still a major problem in the United States, with a particular focus on campus racially biased incidents and hate crimes. Results show that having a reported hate crime on campus did not have a significant association with white students’ senior-year views, while a higher level of news coverage of campus racially biased incidents significantly predicted white women’s senior-year views on racial discrimination. Implications of the findings with respect to higher education research, policy, and practice are discussed.

Giani, Matt S.; Attewell, Paul; Walling, David (2020):

### The Value of an Incomplete Degree. Heterogeneity in the Labor Market Benefits of College Non-Completion.

In: *Journal of Higher Education, The* 91 (4), S. 514–539. DOI: 10.1080/00221546.2019.1653122.

#### Abstract:

Many undergraduates leave college without completing a degree or credential. Some researchers characterize this as a waste of the student’s time because (they assert) college short of a degree does not yield any advantage in the labor market. Using data for an entire cohort of students graduating high school in Texas in one year, we compare the employment and earnings years later of those who do not go beyond high school with those who enter college but do not complete a credential. Using techniques that address selection bias, we find that students with “some college” are considerably more likely to be employed fifteen years after high school graduation and tend to earn significantly more than their counterparts who do not go to college. These benefits are found across student subgroups, with low-income students, women, and students of color generally experiencing the greatest improvements in labor outcomes from college attendance. While college dropouts do not fare as well as college graduates, incomplete college nevertheless functions for many as a stepping-stone into a better labor market position.

Harper, Casandra Elena; Zhu, Hao; Marquez Kiyama, Judy (2020):

### Parents and Families of First-Generation College Students Experience Their Own College Transition.

In: *Journal of Higher Education, The* 91 (4), S. 540–564. DOI: 10.1080/00221546.2019.1647583.

#### Abstract:

This case study of families of first-generation college students, drawing from multiple data sources including longitudinal data from 8 parents who were interviewed three times over the span of their students’ first college year and focus group data with parents attending college orientation, expands our understanding of parent and family engagement in students’ college experiences. This qualitative study also offers insight into parents’ views of and interactions with college, which are informed by direct communication with parents as well as students sharing stories and information about their experiences in college with their parents. Key themes include: 1) valuing a college degree, 2) changing relationship dynamics, 3) changing roles and dynamics, 4) changing involvement in educational events, and 5) institutional engagement of parents. With this knowledge, strategies can be developed to foster and support what parents are already doing well and address any gaps in resources, support, or information — whether on behalf of parents or the institution.

Haynes, Chayla; Taylor, Leonard; Mobley Jr, Steve D.; Haywood, Jasmine (2020):

**Existing and Resisting. The Pedagogical Realities of Black, Critical Men and Women Faculty.**

In: *Journal of Higher Education, The* 91 (5), S. 698–721. DOI: 10.1080/00221546.2020.1731263.

**Abstract:**

The existing discourse highlighting Black faculty experiences in the classroom are largely hidden among studies that center the experiences of Faculty of Color who teach courses about race, gender, and/or diversity, regardless of their faculty status. And, even fewer of those studies unpack how their pedagogical approaches further complicate the experiences of Black faculty, especially Black faculty without tenure. The authors, who are Black hetero women and Black queer men, used embodied text as a framework to explore their teaching experiences as faculty and critical pedagogues. Where embodied text establishes the body as a site for learning and knowledge, critical pedagogy asserts that neither the classroom nor the knowledge constructed within that space are apolitical. The study findings illuminated how Black faculty bodies were scrutinized and ultimately showed that Black hetero women and Black queer men who were critical pedagogues embodied a resistance text that when read, oftentimes created intertextual pedagogical situations that invalidated their humanity. This research expands the scholarship on embodied text and critical pedagogy by examining the teaching experiences of Black faculty who not only centered critiques of power and privilege in non-diversity courses, but whose bodies were also disruptive in White, hetero, cis-patriarchal academic spaces.

Hill, Lucas B. (2020):

**Understanding the Impact of a Multi-Institutional STEM Reform Network through Key Boundary-Spanning Individuals.**

In: *Journal of Higher Education, The* 91 (3), S. 455–482. DOI: 10.1080/00221546.2019.1650581.

**Abstract:**

Multi-institutional STEM reform networks have become a popular way to address the challenges facing undergraduate STEM education. Despite an intuitive sense that networks are effective reform mechanisms, few empirical research studies have investigated their impact. This qualitative case study examined the Center for the Integration of Research, Teaching, and Learning (CIRTL), a network of 38 universities that seeks to advance undergraduate STEM education through the preparation of future faculty. Using a case study design involving qualitative network maps and semi-structured interviews, this study investigated the inter- and intra-organizational boundary-spanning behaviors of key institutional representatives who link their campus to the CIRTL Network. Findings indicate that institutional representatives engaged in finding, diffusion, translation, and gaining institutional support behaviors in service to enhancing and expanding their local CIRTL programming. Results and a proposed boundary-spanning framework demonstrate the potential that such behaviors have in helping to advance post-secondary STEM education.

Holland, Megan M. (2020):

**Framing the Search. How First-Generation Students Evaluate Colleges.**

In: *Journal of Higher Education, The* 91 (3), S. 378–401. DOI: 10.1080/00221546.2019.1647582.

**Abstract:**

Although college access has increased, first-generation college students are still less likely to enroll in postsecondary education, and when they do enroll, are more likely to attend less selective schools compared to their peers whose parents are college-educated. In order to understand how first-generation students end up where they do, we must consider how they decide which colleges to apply to. Using interview and observational data with 29 first-generation college students and 22 school counseling staff members at two high schools, I examined how students evaluated colleges during the search process. I find that first-generation college students employed three frames to evaluate colleges: incidental, limited and personal fit. Evaluative frames are informed by cultural knowledge about college and social networks and the most common frame that students with limited knowledge used was the incidental frame. Students employing this frame focused on college attendance and deemphasized differences between colleges. Although few first-generation college students evaluated colleges using the personal fit frame, this was the frame most counselors used. Employing different frames meant that counselors and students approached the search with different purposes, making counselors less effective during a critical component of the college process.

Jelks, Samantha M. R.; Crain, Andrew M. (2020):

**Sticking with STEM. Understanding STEM Career Persistence among STEM Bachelor's Degree Holders.**

In: *Journal of Higher Education, The* 91 (5), S. 805–831. DOI: 10.1080/00221546.2019.1700477.

**Abstract:**

Numerous policy initiatives have highlighted the need for the United States to produce more STEM graduates to meet labor market demands. This study challenges that narrative by focusing on the many STEM bachelor's degree holders who do not currently go on to work in a STEM field. Data from the Educational Longitudinal Survey of 2002 (ELS:2002) shows that over 25 percent of STEM baccalaureate graduates did not intend to remain in a STEM field by age 30. Through a series of logistic regression models and the application of human capital theory and social cognitive career theory (SCCT), we explore the demographic, postsecondary, and labor market variables that may influence a student's decision to remain in a STEM career. Results suggest that non-Asian minority students are significantly more likely to leave the STEM professional domain either shortly after obtaining a bachelor's degree or by age 30. Certain experiences (namely faculty research and fieldwork) were associated with a greater likelihood of STEM career entry/persistence, and transfer students also appeared at risk of early departure from STEM career fields. Students who lacked social connections or were unable to relocate for work also reported a perceived lack of job openings in STEM at significantly higher levels.

Kurban, Elizabeth R.; Cabrera, Alberto F. (2020):

**Building Readiness and Intention Towards STEM Fields of Study. Using HSL:09 and SEM to Examine This Complex Process among High School Students.**

In: *Journal of Higher Education, The* 91 (4), S. 620–650. DOI: 10.1080/00221546.2019.1681348.

**Abstract:**

Building on Social Cognitive Career Theory and Xueli Wang's conceptual model of STEM choice, this study advances and tests a model seeking to understand STEM readiness and intention to pursue STEM fields among a representative national sample of 9th grade students drawn from the High School Longitudinal Study of 2009. Structural equation model results suggest several contextual influences (e.g., personal characteristics) and social-cognitive variables (e.g., math and science self-efficacy) contributing to building STEM readiness and students' intention to major in STEM during high school. In general, STEM readiness is impacted directly by SES, math ability, parental involvement, math self-efficacy, science self-efficacy, math interest, and science interest. Intention to major in STEM is directly impacted by STEM readiness, as well as high school students' interest in math and interest in science. Overall, this study expands our knowledge of the process that leads high school students to become prepared for and aspire to pursue majors in STEM.

Lee, Jason C.; Ciarimboli, Erin B.; Rubin, Paul G.; González Canché, Manuel S. (2020):

**Borrowing Smarter or Borrowing More? Investigating the Effects of a Change in Federal Loan Policy.**

In: *Journal of Higher Education, The* 91 (4), S. 483–513. DOI: 10.1080/00221546.2019.1650583.

**Abstract:**

Much of the student loan literature focuses on institutional, individual, and family-level characteristics associated with indebtedness, default, and other undesirable post-graduation outcomes; however, relatively little research examines the role that federal policy has played in student borrowing. This study addresses this gap by analyzing the effects of a change in Stafford loan limits that impacted one subgroup of borrowers. Findings consistently revealed that increases in federal loan limits did not result in students borrowing more. Instead, students utilized newly available Stafford loan dollars to substitute away from other loan sources with less favorable terms, such as private and parent PLUS loans.

Linder, Chris; Lacy, Marvette (2020):

**Blue Lights and Pepper Spray. Cisgender College Women's Perceptions of Campus Safety and Implications of the "Stranger Danger" Myth.**

In: *Journal of Higher Education, The* 91 (3), S. 433–454. DOI: 10.1080/00221546.2019.1664195.

**Abstract:**

Through a case study including focus groups with 32 cisgender women and document analysis of campus newspaper and websites, we highlight ways college women navigate multiple and conflicting messages about campus safety and sexual violence on campus. Although students are aware of statistics indicating most sexual violence happens between two people who know each other, they still engage in safety strategies related to stranger danger. We highlight implications related to messaging about campus safety and sexual violence on campuses.

Luedke, Courtney L. (2020):

**Developing a College-Going Habitus. How First-Generation Latina/o/x Students Bi-directionally Exchange Familial Funds of Knowledge and Capital within Their Familias.**

In: *Journal of Higher Education, The* 91 (7), S. 1028–1052. DOI: 10.1080/00221546.2020.1726702.

**Abstract:**

This qualitative study analyzes interviews with 17 first-generation Latina/o/x students. This study bridges funds of knowledge and social reproduction theory to examine the bi-directional exchange of familial funds of knowledge and capital relevant to higher education in Latina/o/x families. Students' familial funds of knowledge assisted them as they accessed and persisted through higher education. Students bridged fields between their home communities and higher education when they shared capital and transformed it into funds of knowledge to assist family members in accessing college. In doing so, students encouraged the pursuit of higher education, contributing to the college-bound habitus of their familias. Implications for practice center on cultural shifts that must occur at the institutional level to develop policies and practices around developing relationships and partnerships early on with Latina/o/x communities.

Marin, Patricia; Yun, John T.; Garces, Lilia M.; Horn, Catherine L. (2020):

**Bridging Divides. Understanding Knowledge Producers' Perspectives on the Use of Research in Law.**

In: *Journal of Higher Education, The* 91 (2), S. 167–191. DOI: 10.1080/00221546.2019.1621116.

**Abstract:**

Legal challenges continue to play central roles in critical higher education policy discussions. There are, however, wide gaps in understanding between the legal and research communities about the rigor and value of social science in legal decision-making—gaps that need to be addressed to improve the use of research in law. This study focuses on an underexamined viewpoint in the research use process—the producers of research—to examine their normative views about what sources should influence the law and how social scientists should participate in the development of amicus curiae briefs, an important venue through which social science research is introduced to the courts. Drawing from responses to a survey of scholars cited in Fisher, findings highlight the critical roles higher education researchers can play in the research use process. Findings also suggest that members of the social science and legal communities may need to consider a broader set of responsibilities in their work. If research is to be useful in informing solutions to intractable challenges in education and other areas of society, the relationships and understandings between the legal and social science communities must be strengthened.

Martinez, Edna; Elue, Chinasa (2020):

**From Community College to Graduate School. Exploring the Role of Academic Advisors in Promoting Graduate Education at Baccalaureate Degree-granting Community Colleges.**

In: *Journal of Higher Education, The* 91 (7), S. 1003–1027. DOI: 10.1080/00221546.2020.1732176.

*Abstract:*

An increasing number of community colleges have expanded their programmatic offerings to include baccalaureate degrees. Given the representation of low-income students and Students of Color in community college, increased credential requirements for professions that once required only a bachelor's degree, and the benefits of graduate education, such as differences in lifetime earnings, baccalaureate degree-granting community colleges must foster a culture that promotes the full range of post-baccalaureate options, including graduate education. Drawing from validation theory and the concept of warming up, the purpose of this study was to explore the role of academic advisors in promoting graduate education at baccalaureate degree-granting community colleges. Findings highlight promising academic advising policies and practices that can serve to extend educational pathways for students who choose to pursue their bachelor's degree at the community college. In addition to specific recommendations, we also discuss directions for future research.

Mayhew, Matthew J.; Rockenbach, Alyssa N.; Dahl, Laura S. (2020):

### Owning Faith. First-Year College-Going and the Development of Students' Self-Authored Worldview Commitments.

In: *Journal of Higher Education, The* 91 (6), S. 977–1002. DOI: 10.1080/00221546.2020.1732175.

*Abstract:*

The purpose of this paper was to examine the institutional conditions and educational practices associated with the development of first-year students' capacities to script their own religious, spiritual, and worldview narratives through exposure to and thoughtful reflection on encounters with diverse others. We longitudinally administered a theoretically-derived and empirically-validated measure of interfaith learning and development to 7,194 first-year students enrolled in one of 122 institutions. In addition, we weighted data to reflect national demographic presentations for first-year students and used hierarchical linear modeling to account for students nested within institutions. Results indicated that development gains were related to institutional interfaith commitments, including the provision of opportunities for students to participate in at least two formal interfaith co-curricular experiences during the first year in college.

McCallum, Carmen M. (2020):

### Othermothering. Exploring African American Graduate Students' Decision to Pursue the Doctorate.

In: *Journal of Higher Education, The* 91 (6), S. 953–976. DOI: 10.1080/00221546.2020.1731262.

*Abstract:*

The faculty-student relationship is one of the most influential relationships in a college student's life. This is especially true for African American students. However, African American students often have trouble forming quality relationships with faculty, especially at predominantly White institutions. This study sought to better understand the characteristics of faculty-student relationships that influence African American students' decision to pursue doctoral study. Using Othermothering as a conceptual framework, 41 semi-structured interviews were conducted with PhD students who reached candidacy. Influential relationships had Othermothering characteristics. A total of four themes epitomize those characteristics: (1) caring, (2) keeping it real, (3) high expectations, and (4) identity connections.

McGuire, Keon M.; Sweet, Joseph D.; Bryant-Scott, Kenzalia; McTier, Terrence S.; Ikegwuonu, Emeka (2020):

### A Pledge of Faithfulness. How Black Christian Fraternity Men Embody Race, Gender and Religious Identities.

In: *Journal of Higher Education, The* 91 (2), S. 249–274. DOI: 10.1080/00221546.2019.1631072.

*Abstract:*

Though much has been written about the benefits that Black sororities and fraternities offer its members as well as broader communities within and beyond the ivory towers, comparatively fewer studies have addressed how these organizations interact with men's constructions and embodiments of masculinities. Moreover, even fewer studies examine the intersections of masculinities, race, and religion. As such, this paper examines how members of one Black Christian



fraternity construct their manhood amid these intersections. To do this, we conduct an interpretative phenomenological analysis based on interviews, a photovoice exercise, and field notes taken during a fraternity retreat to examine how members of this fraternity negotiate race-gender-religion as they navigate both college life and emerging adulthood. Our analysis reveals that the men embody Black Christian masculinities as responsibility, assuming leadership roles, and actively working against stereotypes and tropes of Black Christian manhood. Ultimately, we argue that colleges and universities should be cognizant of the ways that Black Christian fraternity men experience and respond to gendered racism and that educators themselves be aware of the subtle ways (cisgender heterosexual) Black manhood can sometimes reinforce heteropatriarchy.

Monaghan, David B. (2020):

### College-Going Trajectories Across Early Adulthood. An Inquiry Using Sequence Analysis.

In: *Journal of Higher Education, The* 91 (3), S. 402–432. DOI: 10.1080/00221546.2019.1647584.

#### Abstract:

Though the diversification of pathways through higher education is widely recognized, little is known about longer-term patterns of undergraduate participation and attainment. I used sequence analysis to examine college-going across early and middle adulthood in nationally-representative data. Clustering of sequence data revealed four latent groups of college-goers: marginal students, rapid completers, lifelong students, and delayed completers. Rapid completers cleaved closest to “normal” college attendance, though even among this group non-standard practices were evident. I also examined how employment, marital, and parental transitions vary among these clusters. Rapid completers were most distinctive, and had the most uniform employment and family trajectories. Other clusters had trajectories that were less uniform and involved earlier transitions than rapid completers, but were more uniform and had later transitions than those who never attended college. Findings support the contention that non-standard pathways through higher education are a mechanism for the reproduction of inequality among college-goers.

Ngo, Federick J. (2020):

### High School All Over Again. The Problem of Redundant College Mathematics.

In: *Journal of Higher Education, The* 91 (2), S. 222–248. DOI: 10.1080/00221546.2019.1611326.

#### Abstract:

Using linked high school and college records for a national sample of students, I document the first college math courses that students take and examine how they compare with high school coursework. Detailed 12th-grade math assessment data and variation in college math course-taking allow me to estimate the extent of redundant college math experiences, when students who were identified as being able to pass a higher-level course instead took a lower-level course that they had already completed in high school. I show how redundant math is a distinct experience from college math remediation and how many students in remediation are actually in redundant courses. I also inspect patterns of math redundancy among the college-going population. Roughly one-fifth of college students take math that is redundant and likely unnecessary. This is more commonly the experience of students attending public colleges, female students, and students from lower-SES backgrounds. About 40% of students beginning college in remedial math courses do so in a redundant math course.

Orphan, Cecilia M.; Miller, Graham N. S. (2020):

### The Company Regional Comprehensive Universities Desire to Keep. Choosing Institutional Membership Associations.

In: *Journal of Higher Education, The* 91 (2), S. 300–325. DOI: 10.1080/00221546.2019.1631073.

#### Abstract:

This article presents findings from a multiple-case study examining administrator choice in and use of institutional membership associations (IMAs) among Regional Comprehensive Universities (RCUs). The study’s purpose was to understand what choice of IMAs revealed about status-seeking and mission-centeredness among RCU administrators. Also

examined was how administrators leverage IMAs to position their institutions in the broader postsecondary field. Neo-institutional and network theories guided analysis of two RCU subsets: those that discontinued membership in an RCU association, and current members of the same association that changed Carnegie Classification. Analysis found that membership associations operate similarly to the Carnegie Classifications in the minds of administrators. RCU administrators were interested in the informational resources provided by membership associations that would strengthen their commitment to the historic RCU mission (mission-centeredness), or modify this mission to refocus on the liberal arts or research (status-seeking). Among administrators that had discontinued the RCU association, status concerns were related to this decision. There was also a relationship between choice of membership association and change in Carnegie Classification. Participants saw these groupings (Carnegie and associations) conflating under the advancement of status. Finally, some administrators maintained dual memberships in order to pursue competing priorities related to mission-centeredness and status-seeking.

Ortagus, Justin C.; Hu, Xiaodan (2020):

### A National Study of the Financial Implications of Community College Baccalaureate Adoption.

In: *Journal of Higher Education, The* 91 (7), S. 1053–1086. DOI: 10.1080/00221546.2020.1738163.

#### Abstract:

Community college baccalaureate (CCB) degree programs have become increasingly popular in recent years, with over 100 community colleges in 24 states currently offering at least one bachelor's degree program. Despite the growing prevalence of CCB degree programs, the financial implications of CCB adoption remain largely unknown. This study leverages a novel national dataset and employs a difference-in-differences regression approach to examine the relationship between CCB adoption and multiple indicators of institutional revenue and financial priorities. We find that CCB adoption is associated with decreases in community colleges' reliance on public funds and increases in their reliance on tuition and fees.

Porter, Christa J.; Moore, Candace M.; Boss, Ginny J.; Davis, Tiffany J.; Louis, Dave A. (2020):

### To Be Black Women and Contingent Faculty. Four Scholarly Personal Narratives.

In: *Journal of Higher Education, The* 91 (5), S. 674–697. DOI: 10.1080/00221546.2019.1700478.

#### Abstract:

This study utilized scholarly personal narratives to explore the experiences and perceptions of four Black women who served as full-time contingent faculty members in higher education and student affairs graduate preparation programs. Authors drew upon Black feminist thought and intersectionality to frame this study. Specifically, authors extended Collin's outsider-within status to outsider-outsider-within status to describe the unique experiences of Black women in contingent faculty appointments. Specific findings included: (1) marginalization of contingent faculty, (2) intersections of identities inextricably linked to teaching, and (3) devaluation of scholarly pursuits. Implications for institutional policy and practice are discussed.

Rhoades, Gary (2020):

### Taking College Teachers' Working Conditions Seriously. Adjunct Faculty and Negotiating a Labor-based Conception of Quality.

In: *Journal of Higher Education, The* 91 (3), S. 327–352. DOI: 10.1080/00221546.2019.1664196.

#### Abstract:

This study takes college teaching/educational quality seriously by taking teachers' working conditions seriously. Data consist of contractual provisions about adjunct faculty members' access to instructional resources and professional development in 254 collective bargaining agreements. The research analyzes the negotiated balance in quality-related working conditions between professional rights and managerial discretion, stratified access to those working conditions in the collectively negotiated jurisdiction between part- and full-time faculty, as well as explicit references to educational quality and/or public benefits/beneficiaries. The findings indicate gains in adjunct faculty rights/voice, some parity with full-time faculty in quality-related working conditions, and some explicit references to quality/public benefits. But they also

speak to considerable managerial discretion in not providing those conditions, and adjunct faculty's lesser access to them. The research builds on and extends literature on academic employees' working conditions, finding value in a labor-based conception of basic, quality-related working conditions, and in conceptualizing professorial stratification as fluid, contingent, and shaped by collectively negotiated jurisdiction. It also points to the feasibility of enhancing adjunct faculty working conditions by linking them to higher education attending more to educational quality and public purpose in better serving students and society.

Spindel Bassett, Becca (2020):

**Better Positioned to Teach the Rules than to Change Them. University Actors in Two Low-Income, First-Generation Student Support Programs.**

In: *Journal of Higher Education, The* 91 (3), S. 353–377. DOI: 10.1080/00221546.2019.1647581.

*Abstract:*

Low-income, first-generation (LIFG) students complete college at disproportionately low rates. This qualitative study examines this gap from the perspective of university actors who directly support LIFG students in two student support programs at one public university. Drawing on in-depth interviews and observations, this study investigates how these actors conceptualize the problems that LIFG students face, the solutions that will yield success, and their work in relation to the wider goals of the university. The researcher finds that program staff and mid-level administrators have a deep understanding of the barriers that LIFG students face in mastering the rules of the academic field and the high costs when they fail. While both programs identify six common barriers to success, three structural and three individual, the programs work to mitigate only individual barriers. This one-sided solution reflects the staff and administrators' own position within the academic social field; they do not have enough social, economic, or symbolic capital to enact structural changes within the university and feel largely powerless to change the inequitable rules of the game. This paper concludes with recommendations for future research and institutional efforts to support the success of LIFG students.

Taylor, Barrett J.; Cantwell, Brendan; Watts, Kimberly; Wood, Olivia (2020):

**Partisanship, White Racial Resentment, and State Support for Higher Education.**

In: *Journal of Higher Education, The* 91 (6), S. 858–887. DOI: 10.1080/00221546.2019.1706016.

*Abstract:*

Dominant explanations of state higher education policy tend to emphasize economic models that foreground the business cycle or political approaches that cast ideology as fairly fixed. We instead foreground changing social context to conceptualize state appropriations as predicted not only by these classic explanations, but also by the interplay of racial representation and political party control. Drawing on the racial backlash hypothesis and quantitative analyses, we show that party control of state government and racial representation in higher education jointly explain state appropriations. Unified Republican governments spent more than Democratic or divided governments when White students were overrepresented. Republicans spent less otherwise. These results suggest that partisan attitudes toward racial representation in higher education may shape state government support for colleges and universities.

Torres-Olave, Blanca; Brown, Ashley M.; Franco Carrera, Lillianna; Ballinas, Carlos (2020):

**Not Waving but Striving. Research Collaboration in the Context of Stratification, Segmentation, and the Quest for Prestige.**

In: *Journal of Higher Education, The* 91 (2), S. 275–299. DOI: 10.1080/00221546.2019.1631074.

*Abstract:*

In this article we examine the ways in which institutional stratification and academic labor segmentation contribute to shaping faculty collaborative activities. We draw on interviews from science and engineering faculty at two institutions in the United States to highlight how collaboration, as an essential form of academic labor, is shaped by institutional factors like resource stress and isomorphic pressures to fit the ideal of the “world-class” research-intensive university. The findings suggest that a university's relative position in the institutional status hierarchy has a significant impact on the types of

resources faculty seeking to establish collaborations can access and mobilize, thus reinforcing existing patterns of institutional stratification where “striving” institutions can never catch up to their more prestigious peers. At the same time, the pressure to maximize institutional prestige can create paradoxical interinstitutional dynamics where seemingly successful “Mode 2” units that rely almost exclusively on external resources and partnerships with industry are expected to mold themselves more closely to the activity streams of traditional academic units.

Vican, Shawna; Friedman, Asia; Andreasen, Robin (2020):

### Metrics, Money, and Managerialism. Faculty Experiences of Competing Logics in Higher Education.

In: *Journal of Higher Education, The* 91 (1), S. 139–164. DOI: 10.1080/00221546.2019.1615332.

#### Abstract:

Higher education faces a conflict between the traditional logic of professionalism and an increasingly prominent corporate logic. Using interviews with 30 faculty at a single institution, we seek to understand the consequences of these competing logics. Across our interviews, faculty express a misalignment between their professional values and the corporate logic applied by administrators. This incompatibility contributes to faculty dissatisfaction, much of which is centered around three themes: increasing managerial control, quantification of faculty performance using commensurable metrics, and the university’s financial climate, where generating revenue is perceived to take priority over educational mission. We identify four strategies faculty employ to manage conflicting logics: respondents resist the corporate logic through collective action, insulate themselves by engaging with a community of colleagues who share their professional logic, disengage from fully participating in university life, and consider moving to an institution where the corporate logic is less prevalent. We argue that the institutional logics framework confers several analytic advantages. As a meta-theory that specifies cross-level effects between individual actors, organizations, fields, and institutional orders, it provides a framework to capture top-down and bottom-up change, providing a more robust and inclusive understanding of how corporate logic is being incorporated into higher education.

Wall Bortz, Whitney E.; Knight, David B.; Lyles, Chelsea H.; Kinoshita, Timothy; Choe, Nathan H.; Denton, Maya; Borrego, Maura (2020):

### A Competitive System. Graduate Student Recruitment in STEM and Why Money May Not be the Answer.

In: *Journal of Higher Education, The* 91 (6), S. 927–952. DOI: 10.1080/00221546.2019.1706017.

#### Abstract:

Doctoral student recruitment is a dynamic, complex, and under-researched phenomenon. There is steep competition between programs for recruiting students with large amounts of resources at stake, especially within the STEM fields, and programs do not operate in isolation within such environments. In this paper, we explore how graduate programs position themselves relative to other programs as they recruit STEM doctoral students. Drawing from 47 interviews with graduate program leaders, 49 interviews with graduate students, and 63 questionnaire responses from graduate program staff and administrators, this research analyzes common recruitment practices of STEM doctoral programs alongside student perspectives about their decision processes. We reveal how competitive forces may lead programs to adopt non-evidence-based recruitment strategies that may not align with either program leaders’ stated values or students’ priorities. Although program leaders expressed the importance of students prioritizing academic factors in their decisions, our data revealed that programs commonly utilize financial resources as their main recruitment mechanism in practice. By demonstrating this incongruence, our paper aims to illuminate a potential blind spot so programs might choose to change seemingly institutionalized processes that may be out of alignment with their own stated values and those of the students they are seeking to recruit.

White-Lewis, Damani K. (2020):

### The Facade of Fit in Faculty Search Processes.

In: *Journal of Higher Education, The* 91 (6), S. 833–857. DOI: 10.1080/00221546.2020.1775058.

*Abstract:*

Various concerns regarding the vitality and racial/ethnic composition of the academic profession have prompted new study of faculty search committees and hiring paradigms, most notably examining the term “fit” in candidate appraisals. Yet no study utilizes a candidate evaluation framework to investigate whether or not faculty members truly assess for fit, or if these assessments stifle diversification processes, especially in light of pervasive institutional efforts to reform faculty hiring. This study uses a critical person-environment fit framework and multiple case study methods to investigate how faculty search committee members individually evaluate and collectively select prospective early-career faculty. Results indicate that fit, as system of assumptions, practices, and tactics designed to evaluate and select candidates based on organizational needs, was minimal in faculty searches. Instead, faculty relied heavily on idiosyncratic preferences to evaluate research, teaching, and service credentials, which also contained criterion that directly and indirectly averted diversity. Findings reveal how the review and selection of candidates is as much, if not more, about individual committee preferences than organizational demands or congruence.

Winkle-Wagner, Rachele; Forbes, Jacqueline M.; Rogers, Shelby; Reavis, Tangel Blakely (2020):

### A Culture of Success. Black Alumnae Discussions of the Assets-Based Approach at Spelman College.

In: *Journal of Higher Education, The* 91 (5), S. 653–673. DOI: 10.1080/00221546.2019.1654965.

*Abstract:*

Some campuses are exemplars for best practices for racial inclusion in higher education, and they offer a vital opportunity to understand how to better include Black students. This critical life story analysis of Black college alumnae who graduate from a historically Black, women’s institution, Spelman College, demonstrates the importance of fostering success throughout a student’s college experience. The findings suggest that Spelman offered a deliberate and systematic culture of success from the beginning to the end of the women’s experiences offering lessons that could be adapted within other institutional types in order to foster the success of Black students.

Witteveen, Dirk; Attewell, Paul (2020):

### The Vertical Transfer Penalty among Bachelor’s Degree Graduates.

In: *Journal of Higher Education, The* 91 (1), S. 32–57. DOI: 10.1080/00221546.2019.1609323.

*Abstract:*

Numerous studies have investigated the consequences of vertical transfer on students’ higher education outcomes in comparison to “native 4-year students”—those who went straight from high school into a bachelor’s program. However, the long-term labor market outcomes for vertical transfer students are understudied. Using nationally-representative data from the National Survey of College Graduates 2015, we estimate the relationship between starting in a community college (vs. at a 4-year college) and postcollege earnings and employment, in ways that correct for selection bias and overdispersion. We estimate a roughly 14% earnings disadvantage for baccalaureates who started at a 2-year rather than 4-year institution, regardless of college major. No effect was found on graduates’ employment chances.

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## Editorials

Bentley, Peter James; Graham, Carroll (2020):

Fortieth anniversary of the journal of higher education. A decade in review.

[Editorial Essay]. In: *Journal of Higher Education Policy and Management* 42 (1), S. 3–13. DOI: 10.1080/1360080X.2020.1714171.

### Abstract:

This paper reviews the fourth decade of the Journal of Higher Education Policy and Management, including author analyses and thematic insights from articles published from 2009 to 2018. In addition to an increase in the number of articles published, the Journal now publishes more articles by authors from outside Australia, female authors and co-authored articles. Institutional management and leadership is the most common theme, responsible for just over one quarter of articles. By methodology and level of analysis, roughly half of all articles utilise survey or multivariate approaches and target national-level insights. Due to the practical orientation of the journal, many articles integrate management, leadership and policy with other common higher education themes, such as student experience and quality assurance.

Bentley, Peter James; Graham, Carroll (2020):

Letter from the editors.

[Editorial]. In: *Journal of Higher Education Policy and Management* 42 (1), S. 1–2. DOI: 10.1080/1360080X.2020.1714172.

Bentley, Peter James; Graham, Carroll (2020):

Letter from the editors.

[Editorial]. In: *Journal of Higher Education Policy and Management* 42 (3), S. 267–268. DOI: 10.1080/1360080X.2020.1769312.

Bentley, Peter James; Graham, Carroll (2020):

Letter from the editors.

[Editorial]. In: *Journal of Higher Education Policy and Management* 42 (5), S. 531. DOI: 10.1080/1360080X.2020.1823056.

Bentley, Peter James; Graham, Carroll (2020):

Letter from the editors.

[Editorial]. In: *Journal of Higher Education Policy and Management* 42 (6), S. 601. DOI: 10.1080/1360080X.2020.1826654.

Davis, Heather; Croucher, Gwilym (2020):

Letter from the guest editors.

[Editorial]. In: *Journal of Higher Education Policy and Management* 42 (4), S. 385–387. DOI: 10.1080/1360080X.2020.1802092.

Horta, Hugo; Mok, Ka-Ho (2020):

Challenges to research systems, academic research and knowledge production in East Asia. Learning from the past to inform future policy.

[Editorial]. In: *Journal of Higher Education Policy and Management* 42 (2), S. 119–133. DOI: 10.1080/1360080X.2020.1738125.

## Original Articles

Aboramadan, Mohammed; Dahleez, Khalid; Hamad, Mohammed (2020):

Servant leadership and academics' engagement in higher education. Mediation analysis.

In: *Journal of Higher Education Policy and Management* 42 (6), S. 617–633. DOI: 10.1080/1360080X.2020.1774036.

*Abstract:*

This study presents a model for the impact of servant leadership on work engagement of staff in academic settings. Moreover, the paper introduces intrinsic motivation, psychological ownership, and person-job fit as intervening mechanisms between servant leadership and work engagement. Our data were gathered from academic staff working in twelve Palestinian universities. We used partial least squares SEM to investigate the hypotheses. Results indicate that the link between servant leadership and academics' work engagement is not straightforward. Intrinsic motivation, psychological ownership, and person-job fit of academic staff had a full mediating effect among the examined variables. The paper provides evidence that servant leadership is a promising style for higher education. Moreover, the paper offers important implications for administrators and policymakers in higher education about the role of servant leadership in promoting academics' work engagement.

Aiston, Sarah Jane; Fo, Chee Kent; Law, Wing Wah (2020):

Interrogating strategies and policies to advance women in academic leadership. The case of Hong Kong.

In: *Journal of Higher Education Policy and Management* 42 (3), S. 347–364. DOI: 10.1080/1360080X.2020.1753393.

*Abstract:*

The absence of women academics in the most senior ranks and leadership roles in higher education is both an international phenomenon and an enduring social justice issue. This article provides an original insight into the 'policy' response to the underrepresentation of women academics as senior leaders in three case-study universities in Hong Kong. Based on documentary analysis and interviews with 35 women academics, the research indicates: 'gaps' between institutions voicing a commitment to gender equality and actual practice; middle management being a 'sticking point' in bringing about cultural change; a lack of understanding by some male colleagues of the barriers women face in the profession; a rejection of positive or affirmative action by interviewees; and a policy context that is focused upon equal treatment.

Borraz-Mora, Javier; Hernandez-Ortega, Blanca; Melguizo-Garde, Marta (2020):

The influence of generic-academic competences on satisfaction and loyalty. The view of two key actors in higher education.

In: *Journal of Higher Education Policy and Management* 42 (5), S. 563–578. DOI: 10.1080/1360080X.2019.1689802.

*Abstract:*

Despite the large number of studies about competences in higher education, several important gaps in research can be identified. The present paper aims to fill two of these gaps by analysing the influence of generic-academic competences on individuals' satisfaction with the learning experience, and of this satisfaction on their loyalty to their higher education institution. Loyalty is measured through two components: intentions of recommending the higher education institution, that is, word of mouth (WOM) communication and confirmation of past behaviour. Moreover, two key actors in the learning process -current students and ex-students- have been analysed. Partial Least Squares (PLS) are used to analyse the structural model and to test possible differences between groups. The findings demonstrate that satisfaction is a fundamental mediator between generic-academic competences and loyalty. Institutions have to reinforce generic-academic competences, focusing both on current students and ex-students to obtain loyal customers.

Butler, Jane (2020):

Learning to lead. A discussion of development programs for academic leadership capability in Australian Universities.

In: *Journal of Higher Education Policy and Management* 42 (4), S. 424–437. DOI: 10.1080/1360080X.2019.1701855.

*Abstract:*

This paper critically explores the opportunity for leadership development in higher education within an interpretative inquiry paradigm from the perspective of middle-level academics transitioning into leadership/management roles in Australian universities. Middle-level academics are described as being at a mid-point in their careers and universally appear to represent a substantial percentage of academic personnel in tertiary institutions. Much has been written about the rapid and seemingly unstoppable changes occurring in the higher education climate as a result of global reform and with it the effect that change is having within the realm of academic leadership. Of some interest particularly is the effect that change is having at the level of middle-level academics in leadership roles. Many universities throughout Australia have established various 'leadership capability frameworks' to meet the need of leadership and management development. However, consideration needs to be given to how well these programs prepare middle-level academics for their leadership roles.

Chan, Sheng-Ju; Yang, Chia-Yu; Tai, Hung-Chun (2020):

Knowledge production and internationalisation of research in Taiwan. A new watershed?

In: *Journal of Higher Education Policy and Management* 42 (2), S. 245–260. DOI: 10.1080/1360080X.2020.1730536.

*Abstract:*

A major evolution of the research system has taken place in the Asian region. Taiwan, as an emerging economy, has systematically upgraded its knowledge production and international academic collaboration during recent decades. Within this broader context, this research aims mainly to investigate the contemporary development of knowledge production and internationalisation of research in Taiwan. Particular attention is directed to the concrete policies and mechanisms, current scenarios, and emerging issues and challenges. Despite relatively successful development until the early 2000s, our empirical evidence has revealed relatively low-ranked expenditures on R&D, declining R&D personnel, shrinking total international publications, stagnant research quality, and unbalanced disciplinary development. Moreover, emerging issues and challenges include intertwined factors that have lowered research outputs, diverse academic approaches, talent shortages, ageing faculty, and a lack of institutional underpinnings. In other words, Taiwan has reached a new watershed. Conclusions and implications are drawn in line with the systematic downsizing and quality enhancement.



Cheng, Michelle W.T.; Chan, Cecilia K. Y. (2020):

### Do university residential experiences contribute to holistic education?

In: *Journal of Higher Education Policy and Management* 42 (1), S. 31–48. DOI: 10.1080/1360080X.2019.1659211.

#### Abstract:

Can residential experiences help undergraduates develop holistic competencies? To answer this question, a study was conducted based on the insights of 211 residents in Hong Kong. Deductive and inductive content analyses were respectively used to examine residence life outcomes, particularly in holistic competencies, and to categorise the types of residential experiences deemed to be effective for these outcomes. Results revealed that participation in hall activities led to the development of residence life outcomes, including justice, humanity, wisdom, courage, transcendence, and wellbeing. Furthermore, planning/organising hall activities greatly improved students' sense of justice while interpersonal dynamics facilitated the improvement of humanity only. The analyses indicated that students without specific engagement in hall activities were also able to develop temperance, particularly in self-regulation. Recommendations are suggested based on the analyses. It is hoped that this study might help inform policy-making processes to provide better residential environment that is beneficial to student holistic development.

Clavero, Sara; Galligan, Yvonne (2020):

### Analysing gender and institutional change in academia. Evaluating the utility of feminist institutionalist approaches.

In: *Journal of Higher Education Policy and Management* 42 (6), S. 650–666. DOI: 10.1080/1360080X.2020.1733736.

#### Abstract:

This article explores research on gender and institutions for the purposes of informing analytical frameworks for research on institutional change with regard to gender equality in higher education. Drawing on feminist institutionalist studies that explore the relationship between gender, institutions and institutional continuity and change, the aim is to evaluate how this body of scholarship can be adapted to an analysis of the dynamics of gender equality plan implementation in universities.

Croucher, Gwilym; Lacy, William B. (2020):

### Perspectives of Australian higher education leadership. Convergent or divergent views and implications for the future?

In: *Journal of Higher Education Policy and Management* 42 (4), S. 516–529. DOI: 10.1080/1360080X.2020.1783594.

#### Abstract:

Leadership matters for the success of large enterprises and this is also the case for higher education institutions and universities. Yet, the public nature of universities and of academia means these institutions are usually highly dependent on external actors, in particular government. Viewed through a lens of distributed leadership, this paper explores how leaders in universities, national academies and government view and rate key changes associated with this pervasive reorientation and reorganisation of public higher education. It asks where do the views of leaders within universities and those outside universities converge and diverge and what patterns are evident in the differences between leaders? Drawing on 116 in-depth interviews and 114 follow-up surveys with senior higher education leaders in Australia, of which just over half were university senior executives, this paper concludes that all leaders surveyed are largely aligned in their views of most issues.

Dollinger, Mollie; Lodge, Jason (2020):

### Student-staff co-creation in higher education. An evidence-informed model to support future design and implementation.

In: *Journal of Higher Education Policy and Management* 42 (5), S. 532–546. DOI: 10.1080/1360080X.2019.1663681.

*Abstract:*

Increased marketisation and competition has renewed interest in how universities can partner, or co-create, with students. To address this, and further conceptualise a model of co-creation across inputs, processes, and outcomes, this article summarises the findings from 10 different case studies of student-staff co-creation (e.g., co-producers of learning resources, peer mentors, co-creators of the curriculum) in the Australasian higher education context. Our data include qualitative survey responses (n= 97) and interviews (n= 35) with students and staff. Based on these data, we present an evidence-informed model of co-creation that elucidates the key considerations in the co-creation process. The model highlights and distinguishes two dual-value creation dimensions that underlie co-creation, co-production, and value-in-use. The result is a model of co-creation in higher education that can help guide administrators, researchers, and higher education stakeholders to better conceptualise, design, implement, and assess co-creation activities.

Dowsett, Leah (2020):

Global university rankings and strategic planning. A case study of Australian institutional performance.

In: *Journal of Higher Education Policy and Management* 42 (4), S. 478–494. DOI: 10.1080/1360080X.2019.1701853.

*Abstract:*

Institutional league tables, such as the Academic Ranking of World Universities, have become part of the global higher education landscape. This article discusses findings from a longitudinal study examining four Australian universities over a fifteen year period which traces how international rankings have come to be articulated in university strategy. Through an analysis of annual reports and strategic plans, this inquiry highlights the impact of rankings on the institutions, with a particular focus on their research strategy. The selected universities demonstrate that they act strategically in how they seek to both influence and respond to annual ranking releases. The results show that specific changes in strategic direction not only improve a university's market position but can also contribute to a significant rise in their rank.

Effeney, Gerard (2020):

Risk in work integrated learning. A stakeholder centric model for higher education.

In: *Journal of Higher Education Policy and Management* 42 (4), S. 388–403. DOI: 10.1080/1360080X.2019.1701852.

*Abstract:*

Work Integrated Learning (WIL) increases the 'work readiness' of university graduates but it is a complex undertaking and involves numerous risks for the stakeholders involved. A systematic review of the literature published between 2012 and 2017 reveals that the discourses related to risk and WIL are quite limited with the perspectives of key stakeholders receiving little attention. To address these shortcomings, a stakeholder centric model is proposed that conceptualises risk as a network of potentially fragile relationships and interactions, centred on the student, and involving all key WIL stakeholders. This Stakeholder Interaction (SI) model provides a framework for the analysis of risk from the perspectives of each stakeholder in turn and as such, has the potential to inform the management of risk in WIL more broadly and address some gaps in academic discourse and practice.

Elwick, Alex (2020):

Valuing diversity in universities. Institutional value statements and the reality of student intakes.

In: *Journal of Higher Education Policy and Management* 42 (3), S. 269–284. DOI: 10.1080/1360080X.2019.1701848.

*Abstract:*

Many of the universities in England publicise statements of their values, separately from other mission statements, aims or goals. This paper compares universities whose value statements contain direct references to diversity, inclusion or equality, with those that do not and seeks to explore whether such values are reflected in these institutions' student intakes. Although a relatively broad-brush approach, by focusing on the characteristics of student bodies (in terms of ethnicity, disability, and prior background in terms of school type attended and local area) the paper shows that in general there are

minimal differences according to whether a university publically claims to value diversity according to available quantitative data.

Flavin, Michael; Zhou Chen, Ting; Quintero, Valentina (2020):

Size matters. An analysis of UK higher education institution mission statements.

In: *Journal of Higher Education Policy and Management* 42 (3), S. 285–299. DOI: 10.1080/1360080X.2019.1658839.

*Abstract:*

Higher Education Institutions (HEIs) have mission statements as a matter of course. This article analyses 127 mission statements from UK HEIs, comprising 76.048% of the mainstream UK higher education sector. The statements were divided into the categories of Russell Group; Other; and Specialist Institution. A mixed methods research approach was adopted. The article identifies the fifty-seven most frequently used terms in mission statements. It also identifies the average lengths for each of the three categories. The article also analyses claims made and language used in mission statements: selected statements were subjected to close analysis. The article shows mission statements from Russell Group universities tend to be shorter, whereas HEIs outside the Russell Group make more detailed statements of their provision and credentials. Structurally, mission statements are distinct between the three categories. Linguistically, there is less distinction, though there is some difference in the most frequently used terms in each category.

Fox, Jillian L.; Diezmann, Carmel M. (2020):

An analysis of teaching and learning partnerships in Australian universities. Prevalence, typology and influences.

In: *Journal of Higher Education Policy and Management* 42 (4), S. 404–423. DOI: 10.1080/1360080X.2020.1783593.

*Abstract:*

Teaching and learning partnerships in universities have the potential to enhance the interconnections and interdependencies between higher education, society and the economy for the benefit of all stakeholders. The aim of this paper was to investigate five representative Australian universities' engagement in teaching and learning partnerships identifying the prevalence, type and influences. The two data sources were each university's Mission-based Compact and their strategic plans. A total of 134 statements in the Compacts related to teaching and learning partnerships and these statements related to eight themes. These teaching and learning partnerships within a particular time period were influenced by industry–community relationships, accreditation requirements, and the broader social environment. Whilst all universities in the study acknowledge the significance of teaching and learning partnerships, it is the depth and breadth of these teaching and learning partnerships that create distinctions among the universities.

Gibson, Mark T. (2020):

Student intimidation, no pay and hunger strikes. The challenges facing Heads of Department in Bangladesh colleges.

In: *Journal of Higher Education Policy and Management* 42 (3), S. 365–379. DOI: 10.1080/1360080X.2020.1733735.

*Abstract:*

The role of the Head of Department is at the heart of tertiary education; it is where institutional policy and procedure are predominately enacted. The extant literature on the nature and challenges of such roles is almost exclusively from the Western world. The research that this article reports on examined the leadership and management structures and staff progression routes in Bangladesh colleges. The project then explored the roles and challenges facing Heads of Department in the colleges. Four focus groups were held comprising of a total of 26 Heads of Department from Bangladesh colleges. Findings indicate that the Bangladesh higher education system is highly centralised, from the Ministry of Education and the National University. Participants report their role as primarily paper-based administration with little autonomy. The challenges they face involve dealing with acute staffing shortages, student political activists and no preparation and development in the form of training. These roles and challenges differ from roles in higher education in the literature.

Guzmán-Valenzuela, Carolina; Barnett, Ronald; Labraña, Julio (2020):

**Consensus and dissensus. Changing perceptions of the public dimension of universities in a marketised environment.**

In: *Journal of Higher Education Policy and Management* 42 (1), S. 49–66. DOI: 10.1080/1360080X.2019.1658850.

**Abstract:**

In this paper, the public dimension of universities in Chile is examined. Interviews were held with academics at both public and private well-established universities and new private universities. The analysis shows a consensus regarding the production of certain public goods such as knowledge, wider access and the promotion of a public sphere. It also reveals a dissensus such that academics at well-established universities tend to maintain a statist view of the public university in which the state plays a key role while academics at new private universities characteristically adopt an individualist view in which the university is detached from the state and more focused on securing social mobility. Drawing on an Archerian framework, it is suggested that these perceptions have been shaped by global, national and especially institutional factors. Critical questions arise concerning the possibility of spaces for new perceptions of the public dimension of universities.

Harkin, Damien G.; Goedegebuure, Leo (2020):

**Exploring the potential for mergers and strategic partnerships within the Australian higher education system through the application of Value Nets.**

In: *Journal of Higher Education Policy and Management* 42 (4), S. 458–477. DOI: 10.1080/1360080X.2019.1701854.

**Abstract:**

We apply Value Nets as a tool for identifying potential partnership opportunities between the University of Adelaide (UofA) and University of South Australia (UniSA), and between the University of Queensland (UQ) paired with the Queensland University of Technology (QUT). Institutional profile data revealed a similar relationship within each pair. UQ and UofA are local pacesetters in research and offer a comprehensive range of courses. QUT and UniSA have developed world-class research programs and generally outperform their older neighbour in learning and teaching. The research performance gap between UofA and UniSA is narrower than that seen between UQ and QUT. Value Nets provide a useful tool for deeper reflection. The case for merger is stronger for UofA and UniSA. Nevertheless, a closer examination reveals significant potential for divergent opinions about how such a merger should be implemented. More importantly, Value Nets reveal significant opportunities for mutual gain without the requirement for merging.

Harrison, Emma D.; Fox, Claire L.; Hulme, Julie A. (2020):

**Student anti-bullying and harassment policies at UK universities.**

In: *Journal of Higher Education Policy and Management* 42 (5), S. 547–562. DOI: 10.1080/1360080X.2020.1767353.

**Abstract:**

This article provides the first analysis of all available UK university anti-bullying policies, summarising, comparing, and contrasting the content of policies acquired from university websites. The importance of anti-bullying policies is known from policy research in schools and workplaces but has previously not been investigated in Higher Education. A new coding framework and guidelines were developed to enable our analysis, and universities were given a score. Scores indicated variation between policies, suggesting some students may have inadequate support when consulting their university policy. The findings indicate that all universities should create and implement an anti-bullying policy. Students could be involved in the development of interventions or policies, as co-created initiatives may be more influential. University policy must be up-to-date, inclusive, comprehensive yet concise, and it must be publicised. We propose that our novel coding framework could be of use to policy makers and researchers investigating bullying policy within higher education.

Horta, Hugo; Shen, Wenqin (2020):

**Current and future challenges of the Chinese research system.**

In: *Journal of Higher Education Policy and Management* 42 (2), S. 157–177. DOI: 10.1080/1360080X.2019.1632162.

*Abstract:*

This paper assesses the evolution and current situation of the Chinese research system, mainly the academic research system from 1996 to 2017, using trend analysis and the revealed comparative advantage (RCA) index. Despite the impressive growth of China's knowledge capability, as measured by the number of publications in the international indexed literature over the past four decades, the country is still in a catching-up pattern with the world's most advanced research systems, instead of being a full-fledged scientific superpower. The analysis shows that China's publication growth has been to some extent inflated, as it was boosted by the inclusion of Chinese language journals in the international indexed literature. Therefore, this growth should be considered in a more moderate light. The competitiveness of China's disciplinary areas appears somewhat stalled when comparing the 1996–2000 and 2013–2017 periods, during which the same STEM-related disciplinary areas were the most competitive. This finding reveals not only a specialised knowledge structure, typical of catching-up countries, but also underperforming and neglected disciplinary areas in the social sciences, humanities and health sciences from a research funding standpoint. Based on this assessment, it is recommended that policymakers and university administrators change their focus from research quantity to research visibility by allocating funding in a less concentrated way to STEM fields, while promoting collaborative initiatives that can encourage the qualifications of academics and the visibility of the knowledge they produce.

Jing, Xiaoli; Liu, Qiang; Ghosh, Ratna; Wang, Lu; Sun, Zhaohui (2020):

Global integration and local responsiveness in managing international branch campuses. An empirical investigation of McGill MBA Japan Program.

In: *Journal of Higher Education Policy and Management* 42 (3), S. 300–315. DOI: 10.1080/1360080X.2019.1679326.

*Abstract:*

The study investigates the practices of the McGill MBA Japan Program in dealing with the issue of adapting to the host country while providing education comparable to that of the home institution. Based on semi-structured interviews with academic directors, academic staffs, administrators, students and other stakeholders of the McGill MBA Japan Program, we found that the McGill MBA Japan Program maintained a very high degree of global integration with the home institution regarding staffing and curriculum and like many other international branch campuses, it does not emphasise the importance of localising research in operation. These findings, we argue, result from the interaction between the McGill MBA Japan Program and its external stakeholders including McGill University's Desautels Faculty of Management, students, the Ministry of Education, Culture, Sports, Science and Technology in Japan and local competitors.

Jung, Jisun (2020):

The fourth industrial revolution, knowledge production and higher education in South Korea.

In: *Journal of Higher Education Policy and Management* 42 (2), S. 134–156. DOI: 10.1080/1360080X.2019.1660047.

*Abstract:*

Recent discourse about the fourth industrial revolution has revealed several issues in Korea, suggesting the need for fundamental changes in the industrial structure and higher education systems, which can prepare Korea for potential periods of technological unemployment. For example, labour expenses in Korea are predicted to be rapidly reduced if many jobs are replaced by machines, and the structure of the current manufacturing industry will not exist within the next 10 years. This position paper, based on a document analysis, explores the question: What are the current challenges for South Korea's higher education sector in light of likely shifts in knowledge production due to the fourth industrial revolution? It will be argued that Korea has multiple challenges in terms of its overall industrial structure, labour market and higher education and will have to upgrade the roles of its government, industry and universities in knowledge creation and skill formation to adapt.

Kang, Yuyang; Jiang, Jin (2020):

Revisiting the innovation systems of cross-border cities. The role of higher education institution and cross-boundary cooperation in Hong Kong and Shenzhen.

In: *Journal of Higher Education Policy and Management* 42 (2), S. 213–229. DOI: 10.1080/1360080X.2019.1701849.

*Abstract:*

Over the past decades, the development of knowledge-based and innovation-led economy has gained the attention of higher education (HE) institutions. The Quadruple Helix Model of the relations amongst universities, industries, government and society provides a general framework for systematically investigating the dynamics of innovation amongst these agents. However, knowledge about their influence on cross-boundary cities is limited. The ways in which HE institutions bridge different innovation systems also remain unknown. This study thus examines the innovation systems of two neighbouring cities along the border, namely, Hong Kong and Shenzhen, and their multidirectional innovation cooperation. Research findings suggest that the two innovation systems differ in terms of the unequal role of the agents. The systems seem mutually complementary in terms of HE capacity and industrial composition, and cross-boundary cooperation in HE sectors currently occurs through various means. This study sheds light on the development of and cooperation between cross-border innovation systems.

Khalaf, Noha (2020):

Figured worlds in Australian higher education. Figuring out the national system's unspoken purpose.

In: *Journal of Higher Education Policy and Management* 42 (4), S. 438–457. DOI: 10.1080/1360080X.2020.1729324.

*Abstract:*

Conceptualising the quality of higher education as fitness for purpose begs the question of whose purpose? Thus, understanding who has dominance over Australia's higher education system, and what purpose it is seen to fulfil, is important for ensuring that current quality assurance methods are effective. This paper presents the findings of a discourse analysis conducted to explore the unspoken purpose contained in the documents published by the Australian higher education regulator and quality assurance agency. Through the analysis of the Act, newsletter articles published by the agency, and selected relevant documents, the paper shows that the national system is positioned as an export service industry. The paper highlights some of the implications this has on the methods employed to assure the quality of the national system, including the risk posed to the system by a singularity of purpose, and discusses some of the current conditions which may have led to this state.

Li, Ian W.; Carroll, David R. (2020):

Factors influencing dropout and academic performance. An Australian higher education equity perspective.

In: *Journal of Higher Education Policy and Management* 42 (1), S. 14–30. DOI: 10.1080/1360080X.2019.1649993.

*Abstract:*

There has been increasing access to higher education enrolment for disadvantaged individuals following the Bradley Review of Australian higher education. While progress has been made, students from equity groups are still found to lag behind their privileged counterparts in completing higher education. This study examines higher education academic outcomes for equity groups in Australia, specifically, students considering dropout, actual dropout, and marks. The influence of student satisfaction on those academic outcomes are also examined. Students from equity groups tend to have poorer academic marks and are more likely to consider dropout, with health and financial reasons found to be important determinants. These findings support the need for multi-faceted initiatives to support higher education students from equity backgrounds.

Liu, Xu (2020):

Institutional governance of Chinese private universities. The role of the communist party committee.

In: *Journal of Higher Education Policy and Management* 42 (1), S. 85–101. DOI: 10.1080/1360080X.2019.1662926.

*Abstract:*

The relationship between the state and the university is predominantly shaped at a national level which tends to reflect the specific traditions and circumstances of individual countries. In China the Communist Party has played a crucial role in university governance making it different from any other country. However the role of the Chinese Communist Party (CCP) in universities, particularly in private universities, has rarely been discussed in English literature. This paper examines how the University Communist Committee of the Party (UCCP) is set up and works within private universities, and the various patterns of institutional governance that can emerge. It draws extensively on documents of the CCP and interviews with 32 senior managers on 44 separate occasions. The study shows that while allowing private entrepreneurs considerable freedom to invest in higher education, the CCP still has control over the private universities in their socialist development. This is partly achieved through the requirement that every private university must have a UCCP to oversee the implementation of CCP policies in the university.

Lo, William Yat Wai; Tang, Hei-Hang Hayes (2020):

Chasing Phantoms? Innovation policy, higher education and the pursuit of a knowledge economy in Hong Kong.

In: *Journal of Higher Education Policy and Management* 42 (2), S. 178–193. DOI: 10.1080/1360080X.2019.1687268.

*Abstract:*

This paper provides a critical account of the role of universities in the development of innovation and technology in Hong Kong. To do so, the paper examines the political economy of Hong Kong's innovation and technology development. It outlines a finance-led regime, under which the vision of long-term innovation initiatives is transformed into short-term finance events, and the development of an entrepreneurial culture in society and in universities is neglected. The paper also suggests that the current research funding system and the rise of managerialism in the higher education sector restrict the development of academic entrepreneurship, though universities play a significant role in the innovation system. The paper closes by examining the recent changes in higher education policy and governance, the intensification of integration with mainland China and their implications for prospects of advocating a culture of innovation and promoting innovation and technology in Hong Kong.

Luczaj, Kamil (2020):

Foreign-born scholars in Central Europe. A planned strategy or a 'dart throw'?

In: *Journal of Higher Education Policy and Management* 42 (6), S. 602–616. DOI: 10.1080/1360080X.2019.1682955.

*Abstract:*

This paper, based on 100 in-depth interviews conducted in Poland and another 40 in Slovakia, analyses life trajectories of foreign-born scholars who decided to pursue careers in Central Europe. Their narratives are very different from the regular "linear" careers reported in the studies focused on academic profession, which usually start with good student performance and proceed to publications, research projects, and conference appearances, to growing recognition, and finally, retirement. The overarching research question of this paper is, How do contingent factors shape the academic careers of foreign-born scholars in Central Europe? The study demonstrates that, in the semi-peripheries of global knowledge production, a typical recruitment process is triggered by external factors usually unrelated to professional motivations (e.g. a romantic relationship or an unexpected academic job offer). The decision to migrate is usually made with limited knowledge about the receiving country. The emic category of "dart throw" captures this situation well.

Maio, Carmela de; Dixon, Kathryn; Yeo, Shelley (2020):

Responding to student plagiarism in Western Australian universities. The disconnect between policy and academic staff.

In: *Journal of Higher Education Policy and Management* 42 (1), S. 102–116. DOI: 10.1080/1360080X.2019.1662927.

*Abstract:*

Maintaining academic integrity is an area of major importance for today's institutions of higher learning. Despite universities having in place academic integrity policies and procedures, findings from semi-structured interviews with 26 academics from four, public Western Australian universities suggest that responses to incidences of student plagiarism are inconsistent and not aligned with the responses expected of them by their institution as set out in these institutional documents. Using thematic analysis, an SIA model is proposed which categorises the reasons for these inconsistencies under Student, Academic and Institutional factors. It suggests that if academics prioritise the student and themselves, their responses are more likely to be inconsistent and not aligned with the responses expected from them by their institution. Recommendations to help develop a shared understanding of plagiarism include online, academic integrity modules for all staff. This shared understanding will lead to more consistent and aligned responses which in turn will help maintain the reputation of the institution and the integrity of its awards.

Mok, Ka-Ho; Welch, Anthony; Kang, Yuyang (2020):

Government innovation policy and higher education. The case of Shenzhen, China.

In: *Journal of Higher Education Policy and Management* 42 (2), S. 194–212. DOI: 10.1080/1360080X.2019.1701851.

*Abstract:*

Set against broader theoretical debates regarding the role of the developmental state in driving social and economic developments in Asia, particularly in higher education and research, the present article critically examines the synergies between government, enterprise and universities in China, in promoting innovation-centric entrepreneurship. The example of Shenzhen, China, including its response to the Greater Bay Area initiative, highlights how new governance modalities have emerged to embrace multiple actors and diverse non-state/non-government sectors in support of innovation-centric entrepreneurial ventures. Our analysis reveals new forms of network governance. These include hybrid organisations that have become more proactively engaged in fostering a spirit of entrepreneurship, including in the higher education sector, albeit against a backdrop of tensions in the mainland governance model, between the drive for innovation and re-assertion of Party control.

Morgan, Andrew (2020):

Profiling Australian tertiary education pathway providers.

In: *Journal of Higher Education Policy and Management* 42 (4), S. 495–515. DOI: 10.1080/1360080X.2019.1687269.

*Abstract:*

This paper builds on recent studies of institutional diversity in Australian tertiary education by modifying this model and using it to profile Australian pathway providers. The results offer insight into the role and work of this under-represented part of Australian tertiary education, as well as highlighting key strategic issues for these institutions and encourages a self-reflexive stance towards profiling methodologies.

Nicholls, Karen (2020):

'You have to work from where they are'. Academic leaders' talk about language development.

In: *Journal of Higher Education Policy and Management* 42 (1), S. 67–84. DOI: 10.1080/1360080X.2019.1658922.

*Abstract:*

Language development is integral to learning, teaching and assessment. In higher education language is usually only discussed when it becomes visible through errors or unexpected uses. Occasionally, national or institutional policies



support the fundamental role of language development. More often, language development provision is sporadic. Despite academic leaders' role as key stakeholders in institution-wide language development strategies, their conceptualisations of language development have rarely been subject to in-depth study. This qualitative case study investigates academic leaders' understandings of language development in higher education, both students' and their own. An inductive thematic analysis of the data reveals three significant themes relating to language, learning and context. The contribution of this article is the analysis of inconsistencies and contradictions within those themes through the lens of language as a social semiotic. The analysis highlights how students' language development opportunities can be limited by institutional practices and raises policy implications for higher education.

Simbürger, Elisabeth; Guzmán-Valenzuela, Carolina (2020):

**Framing educational policy discourse in neoliberal contexts. Debates around the public university in a Chilean newspaper.**

In: *Journal of Higher Education Policy and Management* 42 (6), S. 634–649. DOI: 10.1080/1360080X.2019.1687267.

**Abstract:**

This article discusses the role of the media and academic experts in the configuration of educational policy in a neoliberal context. The analysis is based on the discourse on the public/private divide in higher education scrutinising the opinion columns of *El Mercurio*, a major Chilean newspaper. The authors identify the discursive disappearance of the public university and the reappearance of the 'public' dimension connected to the private sector. The discourse of a 'diverse and mixed' system is accomplished by two discursive devices: (a) Reference to (selected) global trends and (b) Scientific expertise in higher education. The economic and discursive power of *El Mercurio* enhances the discourses of opinion columnists on the public/private divide. As a result, the concept of the public takes a hybrid turn, detaching itself from the State as its exclusive owner and connecting it to the market.

Thien, Lei Mee; Jamil, Hazri (2020):

**Students as 'Customers'. Unmasking course experience and satisfaction of undergraduate students at a Malaysian Research University.**

In: *Journal of Higher Education Policy and Management* 42 (5), S. 579–600. DOI: 10.1080/1360080X.2019.1660045.

**Abstract:**

The scarcity of Malaysian undergraduate students' course experience and their overall satisfaction in higher education literature has prompted this study to examine the effects of five course experience quality factors on students' overall satisfaction and gender difference perspective. Data were collected from 315 undergraduate students at a Malaysian research university using a Malay version course experience questionnaire (CEQ). This quantitative study used partial least squares structural equation modeling (PLS-SEM) for data analysis. Findings of Henseler's multigroup analysis and the permutation methods revealed no significant differences between male and female groups with the five course experience quality factors on students' overall satisfaction. However, findings of the pooled dataset revealed good teaching, clear goals and standards, appropriate workload and appropriate assessment have significant effects on students' overall satisfaction. The findings have provided empirical evidence to inform university authorities to tailor well-planned courses to meet students' needs and their satisfaction.

Thornton, Kate (2020):

**Thank goodness it isn't just me. Building a learning community for middle leaders.**

In: *Journal of Higher Education Policy and Management* 42 (3), S. 316–331. DOI: 10.1080/1360080X.2020.1739814.

**Abstract:**

The role of heads of schools or departments in universities has been described as complex and challenging. Despite growing calls for greater support for those in middle leadership roles, there has been little research on what effective preparation or support programmes look like. This article reports on an evaluation of a professional learning and development programme for heads of school at a New Zealand university. Data came from surveys and focus groups

conducted over a 2-year period, and Kirkpatrick's stage model of levels of evaluation and Gmelch's comprehensive academic leadership model are both drawn on. Participants in this study became part of a learning community which provided much-needed collegial support in addition to having opportunities to learn about academic leadership, develop academic leadership skills and reflect on their practice.

Yonezawa, Akiyoshi; Hammond, Christopher D.; Brotherhood, Thomas; Kitamura, Miwako; Kitagawa, Fumi (2020):

**Evolutions in knowledge production policy and practice in Japan. A case study of an interdisciplinary research institute for disaster science.**

In: *Journal of Higher Education Policy and Management* 42 (2), S. 230–244. DOI: 10.1080/1360080X.2019.1701850.

**Abstract:**

This paper examines shifts in the knowledge production policy agenda at Japanese research universities – a transition from discipline-based academic tradition towards interdisciplinary forms of knowledge production – through a case study of a leading interdisciplinary research institute. We examine this transition through the case of Tohoku University, one of seven 'Designated National Universities', and its flagship International Research Institute of Disaster Science. Documentary analysis revealed a renewed emphasis on interdisciplinarity, evident in restructuring towards a 'blended hybrid' model to reconcile the different institutional logics of diverse research traditions among its staff. Interviews with key stakeholders uncovered the internal dynamics of this process, its barriers and opportunities. We conclude with implications for Japanese higher education, arguing that a shift to 'blended hybrid' institutional forms is necessary but insufficient to maintain successful interdisciplinary research institutes. Success is contingent on simultaneous commitment to sustainable international connections and relationships with diverse external stakeholders.

Zhou, Jiming; Deneen, Christopher (2020):

**'Sandwiched' or 'filtering'. Middle leaders' agency in innovation enactment.**

In: *Journal of Higher Education Policy and Management* 42 (3), S. 332–346. DOI: 10.1080/1360080X.2020.1736778.

**Abstract:**

University middle leaders play a significant role in change management. While research examines the outcomes of change management, far less attention has been paid to how middle leaders develop agency and negotiate their identities in achieving these outcomes. This study presents the cases of two middle leaders in Shanghai enacting a curriculum reform at their respective universities. Participants were interviewed at the beginning and the end of the first innovation year and relevant curriculum documents were collected. Data were analysed using a thematic analysis protocol. Figured worlds theory provides a conceptual lens for analysis. The two leaders demonstrated distinctly different patterns of response. Agency and negotiations strongly related to whether they saw themselves as 'sandwiched' between conflicting priorities or 'filtering' these priorities to produce meaningful outcomes. Implications for research and practice are discussed, including understanding and development of middle leaders' agency and identity in the face of complex innovation priorities.

## Reviews

Fengliang, Li (2020):

**Handbook on the politics of higher education** edited by Brendan Cantwell, Hamish Coates and Roger King, UK, Edward Elgar, 2018, 560 pp., \$279 (ebook), eISBN: 978 1 78643 502 6.

[Review]. In: *Journal of Higher Education Policy and Management* 42 (1), S. 117–118. DOI: 10.1080/1360080X.2019.1701856.

Moodie, Gavin (2020):

American higher education since World War II. A history by Roger L. Geiger, Princeton, New Jersey, Princeton University Press, 2019, 400 pp., \$35.00 (hardcover), ISBN: 9780691179728.

[Review]. In: *Journal of Higher Education Policy and Management* 42 (3), S. 380–384. DOI: 10.1080/1360080X.2020.1747960.

Moodie, Gavin (2020):

Higher education research. The developing field by Malcolm Tight, London, New York, Bloomsbury Academic, 2019, 256 pp., £22.45 (softback), ISBN:9781474283755.

[Review]. In: *Journal of Higher Education Policy and Management* 42 (3), S. 383–385. DOI: 10.1080/1360080X.2020.1747959.

## Specials

Acknowledgement to Reviewers of the Journal of Higher Education Policy and Management in 2019.

[Acknowledgements] (2020). In: *Journal of Higher Education Policy and Management* 42 (2), S. 261–265.

## Original Articles

Alfaraidy, Hamdah Abdullah (2020):

Factors Influencing Saudi Parents' Choice of International Schools in Saudi Arabia.

In: *Journal of Research in International Education* 19 (3), S. 220–232. DOI: 10.1177/1475240920976259.

*Abstract:*

The Saudi Ministry of Education has recently begun to allow all Saudi families to enroll their children in international schools. The international curriculum offered by such schools represents a notably different choice compared with Saudi traditional public and private schools, both of which teach the same state-mandated curriculum. As a result of the change, there has been a surge in demand for international education; the number of schools has increased rapidly, and there has been a steady “student leak” towards them and away from traditional schools. Little is known about why Saudi parents choose to enroll their children in international schools. We explored this question by surveying 431 Saudi parents of children attending such schools to identify the main factors contributing to their choice. Although all factors examined were important to parents, curriculum and overall school quality emerged as the most important; socioeconomic status was not influential in their decisions.

Bittencourt, Tiago (2020):

Social class and the construction of international mindedness. A comparative study of International Baccalaureate schools in Ecuador.

In: *Journal of Research in International Education* 19 (2), S. 91–105. DOI: 10.1177/1475240920954046.

*Abstract:*

The purpose of this paper is to examine how students inhabiting distinctive social spaces and experiencing considerably different material realities define, value and problematize the concept of international mindedness. Drawing on a larger multi-sited ethnographic study of two International Baccalaureate schools in Ecuador, the study found that while students from distinct social backgrounds provided similar definitions of what international mindedness entails, they differed notably in what they considered to be the value and potential pitfalls of embodying the concept as a personal disposition. These differences emerged primarily as a result of how students related to their immediate surroundings and the assumptions they made about their future lives. Focusing on students' constructions of ‘place’ and their imagined futures provides an important insight into how students engage with international mindedness specifically, and the International Baccalaureate more broadly. Furthermore, it attests to why matters related to ‘social class’ deserve a greater degree of scholarly attention.

Bunnell, Tristan; Atkinson, Cherry (2020):

Exploring enduring employment discrimination in favour of British and American teachers in ‘traditional international schools’.

In: *Journal of Research in International Education* 19 (3), S. 251–267. DOI: 10.1177/1475240920980188.

*Abstract:*

Volume 2 of this journal included an article (Canterford, 2003) which discussed 'segmented labour markets' in 'international schools'. Using an economics lens, that paper investigated the predominance of British and American educators, concluding that a form of discrimination existed which was driven by demand-side factors. In particular, Canterford identified a labour market dominated by British and American actors, asserting that 'requirements discriminate very effectively against teachers from certain areas of the world.' Our paper re-visits and advances Canterford's discussion, and argues that not only does there still seem to be a reliance on native English-speaking Anglo-American actors in what might be described as 'traditional international schools', but there is a further need to move beyond economic theory towards the application of a sociological one. By applying Pierre Bourdieu's Social Field Theory we show how positive discrimination in favour of native English-speakers from certain Western/Global North nations can occur within a discrete level of activity, creating a condition that is evident yet most often misrecognised. A complex set of doxa endures within the arena, beginning at recruitment level and continuing within curriculum-delivery and teacher-retainment levels. We show how the field in general possesses a normative belief-system that promotes division within the labour market, yet at the same time makes it seem natural, legitimate, and 'legal'. This situation, the *nomos*, is a powerful, structural condition that helps make positive discrimination in favour of British and American actors seem so fundamentally normal as to remain, for the most part, unremarked. The topic still requires substantially more investigation and validation. However, by theorising it, and thus better confronting it, we can arguably begin to deal with it.

Carter, Adam (2020):

**In Search of the Ideal Tool for International School Teachers to Increase their Global Competency. An Action Research Analysis of the Global Competency Learning Continuum.**

In: *Journal of Research in International Education* 19 (1), S. 23–37. DOI: 10.1177/1475240920916045.

*Abstract:*

It is clear that if international school teachers are to be able to properly prepare students for a 21st century globalized workplace, they must first develop the global competence and intercultural skills needed to implement their students' development of global knowledge, skills and attitudes. Unfortunately, in many public schools and international schools, teachers do not possess the global competency needed to do so effectively. Since it can be expensive and ambitious to instill global competency in teachers on a school-wide, district-wide or nation-wide level, it may be more feasible for individual teachers to address their global competency deficit and take the necessary steps to improve it. There are several tools that can be used by individual teachers seeking to improve the awareness, skills and dispositions needed to become a truly globally competent teacher.

This study focused on an innovative new tool, the Global Competency Learning Continuum (GCLC), which was designed for teachers and offers a resource library to help teachers address their shortcomings in twelve different levels of global competency. The research sought to ascertain whether the Global Competency Learning Continuum is an appropriate tool for international school teachers to use to assess and improve their global competency – or if there is a demand for an entirely new instrument that is more applicable to international school teachers. After reviewing research from surveys of international teachers, the data indicates that the Global Competency Learning Continuum is a promising and effective tool for use by international school teachers. It is the only tool designed specifically for teachers by a highly-respected educational institution, is free of charge and offers a valuable trove of resources for teachers who wish to actively improve their global competency.

Dickson, Anisah; Perry, Laura B.; Ledger, Susan (2020):

**Challenges impacting student learning in the International Baccalaureate Middle Years Programme.**

In: *Journal of Research in International Education* 19 (3), S. 183–201. DOI: 10.1177/1475240920976228.

*Abstract:*

While the International Baccalaureate's Middle Years Programme (MYP) is growing in popularity in Australia and across the globe, few studies have examined the benefits and challenges of this IB programme for supporting student learning. Using a qualitative case study design of three Australian schools that formerly offered the MYP, we investigated teacher and school leader perceptions of the MYP for promoting student learning. Perceived benefits included high achievement and skill development through the MYP's emphasis on inquiry-based learning and real-world relevance; criterion-referenced assessments; and a healthy balance between core and elective learning areas. Challenges for students stemmed primarily

from operational difficulties and possible systems-level constraints impacting teachers, including integration of the Australian Curriculum with the MYP; ability to meet the MYP's demands; confusion about MYP terminology and grading systems; and understanding interdisciplinary units. The findings suggest that MYP Coordinators and school leaders play a critical role in ensuring that schools realise the benefits of the MYP for student learning by providing systems-level support to optimise its benefits.

Donkor, Felix Kwabena; Mazumder, Ram Krishna; Hosseinzadeh, Saeed; Roy, Someshwar (2020):

### A User-Centric Design Approach to Understand International Education in the Contemporary World. Motivations and Gender Preferences for Studying in Europe.

In: *Journal of Research in International Education* 19 (1), S. 54–68. DOI: 10.1177/1475240920916046.

#### Abstract:

Education holds promise as a vehicle for sustainable global development and human capacity development, as reflected in the Sustainable Development Goals set by the United Nations. International education has become a prominent feature in contemporary times on the educational landscape as students become increasingly mobile in pursuit of their right to education. This study investigates the key factors that motivate international students to undertake better quality education at higher education (university) level, particularly in Europe, and the underlying gender preferences for study destinations within the framework of push-pull factors. The study collected responses of 288 individuals from 84 countries who had undertaken some form of education in Europe through the European Commission-funded Erasmus Mundus (EM) Scholarship. Responses were collected through an online platform, Survey Monkey. Outcomes of the study revealed that Germany, United Kingdom, Sweden, Netherlands, and Spain are the most popular destinations for pursuing higher education in Europe. The United Kingdom is the most preferred destination for female students while Germany is the most preferred destination for male students, with slight changes for other countries. Key motivating factors for international education were found to be scholarship opportunity, better quality of education, and availability of the relevant study program. The least influencing factors were found to be the commonality of language, suitable environment (eg climate, temperature), geographical proximity, the scope of migration, and social cost.

Grace Chien, Y. (2020):

### Studying Abroad in Britain. Advantages and Disadvantages.

In: *Journal of Research in International Education* 19 (1), S. 69–83. DOI: 10.1177/1475240920916944.

#### Abstract:

There are two sides to every door. This research investigated the advantages and disadvantages of studying abroad at a university in south west England through a sequential exploratory mixed methods design. Except for slight differences in ranking of the perceived top study abroad benefits, interview and survey findings regarding advantages were mostly consistent, suggesting that study abroad issues are generally double-edged to include both positive and negative effects, including for one-year Masters programmes in Britain. In terms of employment advantage, instead of a traditionally so-called 'Western' or 'Eastern' country of origin commonly stated in existing studies, this research suggests that the degree of economic development seems to be strongly related to differences in international students' homeland employment opportunities. Finally, advantages rather than disadvantages of study abroad experiences were reported more strongly by research participants throughout the study.

Jabr Dajani, Dua; Katz-Berger, Hila; King, M. Bruce; Lang, Laura; Levy, Ariel; Pulvermacher, Yael (2020):

### Teacher Leadership Development. Building Bridges not Borders between Israeli Jewish and Palestinian Educators.

In: *Journal of Research in International Education* 19 (2), S. 120–136. DOI: 10.1177/1475240920954858.

#### Abstract:

Teacher leadership development receives considerable attention in many educational reforms across the globe. This article reports on a unique partnership in Jerusalem that brings Israeli and Palestinian educators together to cultivate teacher

leaders who facilitate professional communities and support continual improvement in teaching and learning. The research design involves participatory action research and draws on theoretical frameworks of democratic education, productive professional discourse, and authentic intellectual work. Findings focus on the enhancement of multicultural training, increased depth of pedagogical discussions, and improvement in leading teacher learning communities. The conclusions consider the ways in which a few bridges are overcoming both real and perceived borders in a region of persisting cultural tension and conflict, as the teacher leaders and co-authors developed an emerging common understanding of a shared conception of professional practice across three languages, and a growing mutual respect for the 'other'.

Khalil, Lina; Kelly, Anthony (2020):

### The practice of choice-making. Applying Bourdieu to the field of international schooling.

In: *Journal of Research in International Education* 19 (2), S. 137–154. DOI: 10.1177/1475240920954045.

#### Abstract:

This paper presents findings from a recent study on choice-making among teachers, school leaders and parents in a for-profit British international school in Kuwait. Using a Bourdieusian field analysis, the choice-making of the various stakeholders is investigated to reveal their positionality within the school's social space, to examine the resources they hold and the capitals in which they are willing to invest. We find that choices made by, and within, an international school reveal symbolic violence, and a 'taken-for-granted understanding' that this form of schooling (British- rather than American-style international schooling) is superior. Participants in the study included teachers, parents, graduating class students and school leaders. Teachers and parents were a representative mix of local (both Arab and non-Arab) and expatriate. The study makes an important contribution to the body of knowledge relating to international schools, in its theoretical framework and its inclusion of the wider stakeholder population, which together generate a deeper understanding of professional practice in the international school context.

Mansilla, Veronica Boix; Wilson, Devon (2020):

### What is Global Competence, and What Might it Look Like in Chinese Schools?

In: *Journal of Research in International Education* 19 (1), S. 3–22. DOI: 10.1177/1475240920914089.

#### Abstract:

What exactly does it mean to be globally competent in a Chinese context in the early 21st century? In this article, we propose a culturally informed re-interpretation of 'global competence' rooted in Eastern and Western traditions. We draw on a longitudinal empirical action-research study of Chinese and foreign teachers working to foster global competence in four Chinese cities. Throughout this work we endeavoured to contextualize a view of global competence commonly used in the US and around the world (Boix Mansilla & Jackson, 2012; OECD-PISA, 2017) in ways that could inform Chinese educational practice, honor practitioners' cultural repertoires in a changing national educational landscape, and be informed by state-of-the-art scholarship on Chinese foundational values in education. The formulation proposed foregrounds global competence as a cultivation of self and search to understand and improve the world. It highlights the development of four 'virtuous dispositions' – at once cognitive and moral capacities – deemed essential to navigate a more interconnected world: (a) dedicating oneself to understanding the world within and beyond one's immediate environments, (b) seeking to understand perspectives and relate to others harmoniously, (c) communicating across difference interacting mindfully, and (d) taking action with others harmoniously to help build better societies. Global competence is here viewed as a life-long process of the making of a moral person 'zuo ren' through daily interactions with the world.

This research stands, humbly, as invitation to advance nuanced and adaptive visions of global competence. At their best such visions might offer a common platform for transnational dialog about the capacities needed to navigate an interdependent world, while honoring the cultural contributions and historical contingencies that can enrich common aspirations for our future generations. It is by capitalizing on the opportunity of context-informed re-interpretations that today's global educational frameworks might prepare our youth for a world in which hybridity, mix, and complexity are the new norm. The deliberately culturally hybrid view of global competence we propose is informed by a longitudinal record of participating Chinese and foreign teachers' ideas about global competence education, its meaning, significance, practice and demands, including in-depth interviews, targeted performance tasks, classroom observations, analysis of student work and participatory coding exercises whereby

teachers were invited to comment on and inform emerging conceptualizations of global competence for clarity and cultural familiarity.

Metli, Akin; Lane, Jennie F. (2020):

### International Mindedness. A Revised Conceptual Framework.

In: *Journal of Research in International Education* 19 (3), S. 202–219. DOI: 10.1177/1475240920976229.

#### Abstract:

This paper suggests a revised framework for explaining, developing and assessing international mindedness (IM). A review of the literature – that presents initiatives, challenges, and debates regarding IM – concludes with an overview of selected conceptual frameworks that have been used to develop a shared understanding of IM. When the authors applied one of these frameworks in a previous empirical study, they found during data analysis that some aspects of the framework's key pillars played a more supportive role and that other components of IM needed further identification. As a result, this paper proposes a revision of the framework that features intercultural competence and global engagement, and identifies more specific components of these attributes, namely knowledge, skills, dispositions, and agency. The paper includes another review of the literature to emphasise how these components are important for the development, implementation, and assessment of international mindedness.

Muslim, Ahmad Bukhori; Salim, Herli; Setyarini, Sri (2020):

### Indonesian parental perspectives of international school partnerships involving millennial learners.

In: *Journal of Research in International Education* 19 (2), S. 106–119. DOI: 10.1177/1475240920954051.

#### Abstract:

Despite being long-standing practice among schools across the world, most studies on international school partnerships focus on its benefits and challenges as perceived by teachers and students. Little emphasis has been given to parental perspectives and support, particularly among low-income families. With the increase of community involvement in education, how this partnership program may benefit the foreign language learning of millennials has become a matter of increasing concern among parents. This qualitative study explores Indonesian parents' perspectives of international school partnerships between Indonesian and Australian schools, and how these partnerships support the learning of English as a foreign language and technology utilization. Results from questionnaires and semi-structured interviews indicate parental belief that the program reviewed is an authentic approach to foreign language learning and an appropriate mode of technology-based self-expression. To facilitate their children's learning of English and development of cross-cultural understanding, most parents, despite economic limitations, are willing to support their children's involvement in the international partnership that is the focus of this study.

Ospina, Nelly Sierra; Medina, Sergio Lopera (2020):

### Living and Teaching Internationally. Teachers Talk about Personal Experiences, Benefits, and Challenges.

In: *Journal of Research in International Education* 19 (1), S. 38–53. DOI: 10.1177/1475240920915013.

#### Abstract:

This study reports on the impact of international visiting faculty's teaching experiences in the United States on their personal, professional, and intercultural development. It is based on the principles of qualitative research and can be described as a case study. Data collection involved a questionnaire, a written narrative, and a semi-structured interview with each of a number of teachers. Participants included a group of 22 visiting faculty. Three main categories, each of which can be subdivided into benefits and challenges, emerged from the analysis: intercultural matters, professional matters, and personal matters. A wide range of benefits was identified, suggesting that the participants adapted to new life styles, became more mature, obtained a deeper understanding of themselves, reaffirmed their own educational values and philosophies, raised cultural awareness, became more flexible, and developed attitudes that involved tolerance and



respect. Conversely, visiting faculty reported that they faced challenges related to language barriers, interaction with native speakers, classroom management, lack of support from school administrators, and separation from family.

Poole, Adam (2020):

**Constructing International School Teacher Identity from Lived Experience. A Fresh Conceptual Framework.**

In: *Journal of Research in International Education* 19 (2), S. 155–171. DOI: 10.1177/1475240920954044.

*Abstract:*

This paper responds to Bailey and Cooker's (2019) paper entitled 'Exploring Teacher Identity in International Schools: Key Concepts for Research' in which the authors offer a typology of international school teachers based on interviews with non-qualified teachers. This paper builds upon the typology of international school teachers by offering a framework for researching international school teacher identity. The framework is illustrated by interview data with an expatriate teacher in a Chinese Internationalised School, both of which remain under-researched. Chinese Internationalised Schools typically cater to local middle-class elites and offer some form of international curricula, such as the International Baccalaureate Diploma, alongside study of the Chinese national curriculum. Rather than utilising a priori teacher types derived from existing typologies, the framework utilises teachers' lived experiences to inductively construct a 'snap-shot' of their teacher identity. Drawing upon postmodern approaches to teacher identity, identity is conceptualised as an ongoing dialogic process. Interview data with an international school teacher called Tyron (a pseudonym) is utilised in order to take the reader through how the framework is intended to be put into practice. The framework is an alternative approach to researching international school teachers that guides researchers away from labelling teachers by observation and instead looks at what they do and their histories. Moreover, this approach involves both the researcher and the teacher, and not, as is typically the case, only the researcher.

Williams-Gualandi, Debra (2020):

**The cultural group in intercultural understanding. Implications for teaching from a social identity theory perspective.**

In: *Journal of Research in International Education* 19 (3), S. 233–250. DOI: 10.1177/1475240920978712.

*Abstract:*

Learning about one's own cultures as well as other cultures is a central aspect of the cognitive dimension of intercultural understanding, focusing the individual on cultural group affiliations, belonging and questions of 'who one is'. Using a social identity lens, with a particular focus on self-categorisation theory to explore how individuals view themselves in relation to the groups to which they belong, this article presents the implications of applying self-categorisation theory to aspects of the field of intercultural understanding. From within the self-categorisation framework, the article also reports on findings from a qualitative study involving semi-structured interviews which investigated the beliefs of experienced secondary teachers working in international schools regarding the relationship between the development of intercultural understanding and identity. Teachers indicated increased awareness of primarily national group affiliation, limited engagement with the concept of multiple cultural identities, a process of distancing and creating new group affiliations, as well as some psychological discomfort and conflict avoidance.

## Reviews

Avgerinou, Maria D. (2020):

**Learning through a PRISM: Facilitating Student Intercultural Learning Abroad by Tracy Rundstrom Williams Fort Worth: TCU Press, 2018.**

[Review]. In: *Journal of Research in International Education* 19 (1), S. 86–88. DOI: 10.1177/1475240920914119.

Fisher, Darlene (2020):

Teacher as Traveler: Enhancing the Intercultural Development of Teachers and Students (second edition) by Kenneth Cushner London: Rowman & Littlefield, 2018.

[Review]. In: *Journal of Research in International Education* 19 (3), S. 272–274. DOI: 10.1177/1475240920972833.

Forde, Nicholas (2020):

Practical Pedagogy: 40 new ways to teach and learn by Mike Sharples London: Routledge, 2019.

[Review]. In: *Journal of Research in International Education* 19 (1), S. 84–85. DOI: 10.1177/1475240920914120.

Haywood, Terry (2020):

Navigating Teacher Education in Complex and Uncertain Times by Carmen I Mercado London: Bloomsbury, 2019.

[Review]. In: *Journal of Research in International Education* 19 (3), S. 268–271. DOI: 10.1177/1475240920972832.

Kanan EdD, Hana (2020):

Certification Counts: recognizing the learning attainments of displaced and refugee students by Jackie Kirk (ed) Paris: UNESCO International Institute for Educational Planning, 2009.

[Review]. In: *Journal of Research in International Education* 19 (3), S. 281–283. DOI: 10.1177/1475240920977252.

Levy, Jack (2020):

The Bloomsbury Handbook of Global Education and Learning by Douglas Bourn (ed) London: Bloomsbury Academic, 2020.

[Review]. In: *Journal of Research in International Education* 19 (3), S. 274–281. DOI: 10.1177/1475240920973853.

Pearce, Richard (2020):

Pathways to Belonging: Contemporary Research in School Belonging by Kelly-Ann Allen & Christopher Boyle (eds) Leiden: Brill-Sense, 2018.

[Review]. In: *Journal of Research in International Education* 19 (2), S. 176–179. DOI: 10.1177/1475240920945124.

Prickarts, Boris (2020):

Building Global Education with a Local Perspective. An Introduction to Glocal Higher Education by Emmanuel Jean Francois New York: Palgrave Macmillan, 2015.

[Review]. In: *Journal of Research in International Education* 19 (2), S. 174–176. DOI: 10.1177/1475240920946136.

Williams-Gualandi, Debra (2020):

Beyond Guilt Trips: Mindful Travel in an Unequal World by Anu Taranath Toronto: Between The Lines, 2019.

[Review]. In: *Journal of Research in International Education* 19 (2), S. 172–174. DOI: 10.1177/1475240920949310.

## Editorials

Sabzalieva, Emma; Martinez, Magdalena; Sá, Creso (2020):

Moving Beyond “North” and “South”. Global Perspectives on International Research Collaborations.

[Editorial]. In: *Journal of Studies in International Education* 24 (1), S. 3–8. DOI: 10.1177/1028315319889882.

## Original Articles

Bordogna, Claudia M. (2020):

Are Degree-Awarding Institutions Doing Enough to Support the Implementation of Quality Assurance in Transnational Higher Education Partnerships?

In: *Journal of Studies in International Education* 24 (3), S. 371–386. DOI: 10.1177/1028315319888458.

### Abstract:

As transnational education grows in complexity, it is imperative degree-awarding institutions develop ways to ensure the quality of their offshore provision. Although agencies, such as the Quality Assurance Agency (QAA) in the United Kingdom and Tertiary Education Quality and Standards Agency (TEQSA) in Australia, safeguard standards through guidelines and reviews, it is vital degree-awarding institutions consider their own actions in the pursuit of academic quality. Although codes of conduct can guide quality assurance, this article suggests these documents are not enough to ensure quality education occurs. Offering a study of two Chinese–British transnational partnerships, this article identifies two key challenges that can affect the implementation of quality assurance at the operational level: time and cultural difference. The findings suggest that senior managers at degree-awarding institutions should consider how their structures and policies encourage and support the implementation of quality assurance at the operational level.

Buckner, Elizabeth; Stein, Sharon (2020):

What Counts as Internationalization? Deconstructing the Internationalization Imperative.

In: *Journal of Studies in International Education* 24 (2), S. 151–166. DOI: 10.1177/1028315319829878.

### Abstract:

This article examines how internationalization is defined by three leading higher education professional associations: NAFA, the International Association of Universities, and the European Association of International Education. We examine key publications to understand which activities, topics, and constituencies are included in conceptualizations of internationalization and, conversely, which are absent. We find that all three rely on similar definitions that emphasize international students, student and scholarly mobility, and curricular change. We argue that current definitions are largely de-politicized and de-historicized, while internationalization is often assumed to mean more and better coverage of the globe. Little attention is given to the ethics of international engagement, particularly across unequal relations of power. We conclude with numerous questions for administrators and faculty engaged in internationalization that seek to deepen

conversations about this work. In particular, we emphasize the importance of identifying enduring patterns of global inequality, recognizing ethical responsibilities, and enabling alternative possibilities.

Calitz, Andre Paul; Cullen, Margaret Diane Munro; Jooste, Carlien (2020):

### The Influence of Safety and Security on Students' Choice of University in South Africa.

In: *Journal of Studies in International Education* 24 (2), S. 269–285. DOI: 10.1177/1028315319865395.

#### Abstract:

Higher education institutions (HEIs) are experiencing increased interest and enrolments in study programs by international students. For recruitment and retention purposes it is important that HEI managers understand the factors that influence a student's choice of HEI. Prior studies have found that these factors may differ from country to country and may include culture, educational needs, campus activities, safety, and security, and socio-economic issues (such as an economic downturn and political or social instability). This article reports specifically on research into the influence of safety and security issues on national and international students' choice of public university in South Africa. Two surveys conducted at different times were used to collect data from local and international students. The results indicate that safety and security, played a deciding role in both local students' and international students' choice of university in South Africa, and that the disruption to campus life associated with the #FeesMustFall student protests in South Africa in 2016 may have made international students more aware of safety and security issues on South African university campuses.

Campbell, Anne C.; Lavalley, Chelsea A. (2020):

### A Community of Practice for Social Justice. Examining the Case of an International Scholarship Alumni Association in Ghana.

In: *Journal of Studies in International Education* 24 (4), S. 409–423. DOI: 10.1177/1028315319842343.

#### Abstract:

International higher education student mobility can lead to social change in the students' home countries. This article examines the case of the Ford Foundation's International Fellowship Program Alumni Association in Ghana and how it has organized to affect change. Findings show that this association has assimilated many of the attributes of Wenger's community of practice (CoP) model. These characteristics include building strong communication systems, learning together in workshops, and solving problems through regular communication: activities that have improved their "practice" of social justice advocacy. The study also challenges the CoP model in three key ways relevant to international higher education, including highlighting how graduates incorporate their overseas education in their social justice practice and the limitations of diaspora engagement. Findings aim to inform administrators and participants of international higher education schemes, with a particular focus on international scholarship programs and those seeking to promote social justice.

Chwialkowska, Agnieszka (2020):

### Maximizing Cross-Cultural Learning From Exchange Study Abroad Programs. Transformative Learning Theory.

In: *Journal of Studies in International Education* 24 (5), S. 535–554. DOI: 10.1177/1028315320906163.

#### Abstract:

While some institutions require their students to spend a semester abroad as a prerequisite to earning a business degree, academics challenge the view that travel abroad helps students become culturally competent. Many students admit that they failed to immerse themselves in a cross-cultural environment. Therefore, the purpose of this study is to identify the components of exchange study abroad programs (ESP) that facilitate student cross-cultural learning (CCL). Building on transformative learning theory (TLT), we propose and test a conceptual model of relationships between different components of exchange programs and student CCL. The data collected from more than 700 students participating in a semester and two-semester-long programs are analyzed through logistic regression. This research contributes to the literature on the effectiveness of ESP by identifying the key components that maximize positive outcomes for students. By

building on TLT, it reveals the importance of getting out of one's comfort zone and providing students with support during the ESP. This study bears practical implications as it provides academic institutions and students with important insights that help maximize student CCL.

Daddow, Angela; Cronshaw, Darren; Daddow, Newton; Sandy, Ruth (2020):

### Hopeful Cross-Cultural Encounters to Support Student Well-Being and Graduate Attributes in Higher Education.

In: *Journal of Studies in International Education* 24 (4), S. 474–490. DOI: 10.1177/1028315319861362.

#### Abstract:

The impetus to ensure Australian students, once enrolled, complete their university qualification has become more pressing. Student retention impacts funding in a tight fiscal environment and is used as a benchmark for quality performance. Evidence of increased levels of psychological distress in university students threatens this retention. Risks to student well-being can be compounded for diverse and international students with vulnerabilities that include social isolation, negotiating cultural difference, and marginalization. This article reports on the evaluation of an extracurricular program available to all students in an Australian university that enabled respectful interfaith and cross-cultural dialogue, called Finding Common Ground. The program sought to reduce social isolation, support mature religious expression, counter marginalization, and strengthen graduate attributes. The research highlighted hopeful and surprising cross-cultural encounters, impacted positively on student well-being, enhanced cross-cultural learning, and disrupted the propensity for polarization or "silence" in university (and social) discourse on religious beliefs.

Dowling-Hetherington, Linda (2020):

### Transnational Higher Education and the Factors Influencing Student Decision-Making. The Experience of an Irish University.

In: *Journal of Studies in International Education* 24 (3), S. 291–313. DOI: 10.1177/1028315319826320.

#### Abstract:

Increasingly, universities have been engaging in transnational higher education (TNE), and such activity provides students with an additional study option. While much is already known about the TNE activities of universities in larger countries, such as Australia and the United Kingdom, very little is known about universities from smaller countries, such as Ireland. This article examines an Irish university with international branch campuses in Hong Kong, Singapore, and Sri Lanka. The results of a survey exploring the factors that influenced students' choice of location, institution, and program and conducted among three cohorts of students over a 2-year period are presented. The results suggest that, above all other factors, the university's international ranking and the accreditations and rankings of its Business School are particularly influential in students' decision-making process. This finding highlights a potential exposure in terms of the scale of the institution's student recruitment and revenue streams should it ever experience a decline in its rankings or international reputation.

Gao, Yuan (2020):

### International Collaborations in the VET Sector. Motivations and Challenges.

In: *Journal of Studies in International Education* 24 (2), S. 232–248. DOI: 10.1177/1028315319835531.

#### Abstract:

This study identified the motives for vocational education and training (VET) providers in different countries to collaborate internationally and the challenges they encounter by interviewing 16 teachers, program coordinators, and managers from four VET providers in China and Canada. The findings of this study highlight the difference in primary motives driving VET providers in developed and developing economies to pursue international collaborations. For the former, a commercial approach is prominent, while for the latter, international engagement is more instrumental and developmental in nature. This study also sheds light on the specific barriers such as curricula incompatibility and staff readiness created by the national focus of VET to engage internationally. These findings contribute to a fuller understanding of international

collaborations in different national contexts across educational sectors. Furthermore, the employment of the interorganizational relations theory in guiding the investigation enriches the theory by extending its application into educational organizations and exploring how different motives could be interpreted in the educational setting.

Guimón, José; Narula, Rajneesh (2020):

**When Developing Countries Meet Transnational Universities. Searching for Complementarity and Dealing With Dual Embeddedness.**

In: *Journal of Studies in International Education* 24 (3), S. 314–336. DOI: 10.1177/1028315319835536.

**Abstract:**

During the past two decades, a growing number of universities, mainly from developed countries, have established branch campuses in developing countries. From the developing country perspective, attracting foreign universities can help mitigate financial constraints and capacity shortages that impair the state's ability to provide greater access to higher education, while also improving teaching and research in general. However, foreign universities may also be detrimental if they crowd out their domestic counterparts. We explore different scenarios and policy options for developing countries aiming to attract foreign universities, building upon a review of four case studies from Chile, China, Kazakhstan, and Malaysia. Our analysis illustrates how host countries can provide incentives to align incoming foreign universities to complement and strengthen the areas of weakness in their higher education systems. We also reflect on how policy-makers can deal with the challenges associated with the dual embeddedness of international branch campuses.

Gümüş, Sedat; Gök, Enes; Esen, Murat (2020):

**A Review of Research on International Student Mobility. Science Mapping the Existing Knowledge Base.**

In: *Journal of Studies in International Education* 24 (5), S. 495–517. DOI: 10.1177/1028315319893651.

**Abstract:**

Among the increasing number of academic publications in the field of higher education, studies focusing on internationalization of higher education are on the exponential phase in the last couple of decades. In these efforts, the research on international student mobility (ISM) has been a priority. This current review research uses science mapping tools to examine Web of Science (WoS)–indexed journal publications focusing on ISM. The purpose of the review is to demonstrate the development of ISM research in the last three decades. The findings, revealed from an examination of 2,064 publications, suggest that ISM research has significantly expanded since 2005. Findings also reveal crucial information regarding the authors' country of origin as well as country collaborations and the most influential scholars in the field by demonstrating networks around the world. Topical foci analysis is also included in the study to show current patterns in ISM research. Discussions and suggestions are expected to provide a basis for countries and international organizations in their policy development efforts related to international students and a ground and direction for future research on ISM.

Hei, Miranda de; Tabacaru, Corina; Sjoer, Ellen; Rippe, Ralph; Walenkamp, Jos (2020):

**Developing Intercultural Competence Through Collaborative Learning in International Higher Education.**

In: *Journal of Studies in International Education* 24 (2), S. 190–211. DOI: 10.1177/1028315319826226.

**Abstract:**

In this study, it was hypothesized that collaborative learning in international higher education contributes to the development of intercultural competence. Two hundred fifty-two students of an International Business and Management Study program of a Dutch university participated in two surveys on collaboration in a group-learning activity and one survey on their development of intercultural competence. In addition, three groups of four to six students took part in focus group interviews. The results indicated that when students perceive that the group process improves, the quality of the collaboration in terms of verbal interaction and equal contribution will also improve. Furthermore, the results revealed

that a higher perceived quality of the collaboration relates to an increasing development of intercultural competence. The findings are discussed and related to implications for the use of group-learning activities in international higher education.

Hotta, Taiji (2020):

### The Development of “Asian Academic Credits” as an Aligned Credit Transfer System in Asian Higher Education.

In: *Journal of Studies in International Education* 24 (2), S. 167–189. DOI: 10.1177/1028315318822797.

#### Abstract:

During the last two decades, Asian countries have attempted to establish several aligned academic credit systems as part of the harmonization process of their higher education systems. However, these systems have not been widely used among universities in the Asian region. This article analyzes the current trends in credit-related governmental regulations and university systems in 24 Asian countries and territories. Moreover, it asserts the concept of “Asian Academic Credits,” (hereafter, AACs) as a new widely effective aligned system of academic credit transfer within Asia and also with other regionally aligned credit systems in the world. AACs can serve as one of the vital components for a new era of Asian higher education that provides a regionally aligned, flexible, and innovative learning environment for students throughout the entire Asian region.

Johnson, Tara; Hains, Kristina; Hains, Bryan; Salazar, Janela (2020):

### Conceptualizing University Education Study Abroad Programs Using a Mutualistic Process.

In: *Journal of Studies in International Education* 24 (5), S. 555–572. DOI: 10.1177/1028315319865787.

#### Abstract:

As we continue to develop into a more globalized society, it is an expectation that students in higher education become global citizens. While the literature supports the notion that students positively benefit from international education experiences, little research has been done to determine what role the community plays, or what effects the study abroad experience has on the community in which the student population is engaged. This study introduces an innovative conceptual framework that overlays the biological concept of symbiosis on the international education experience. This unique conceptual framework shines a light on the study abroad experience from the community’s perspective, as well as illustrating positive and negative impacts of student interaction within the local community. The results indicate that not only is there a role for communities but also communities need to be included in the planning and creation of these experiences, ultimately leading to more mutually beneficial outcomes. Ideally, these findings could be used by educators to capture the community voice to create more mutualistic programs in study abroad.

Johnstone, Christopher; Edwards, Paul (2020):

### Accommodations, Accessibility, and Culture. Increasing Access to Study Abroad for Students With Disabilities.

In: *Journal of Studies in International Education* 24 (4), S. 424–439. DOI: 10.1177/1028315319842344.

#### Abstract:

Student mobility is a key aspect of internationalization of higher education. Within the broad population of students who have the opportunity to study abroad, however, there are particular groups who are under-represented. In the United States, for example, approximately 11% of undergraduate students in postsecondary degree-granting institutions have disclosed that they have a disability, yet only 8.8% of those who study abroad disclosed to having a disability to their home institutions. To better understand why under-representation may be occurring, this article examined study abroad through Schwanke, Smith, and Edyburn’s “A3” model of inclusive education, which highlights efforts of institutions related to advocacy, accommodations, and accessibility. Findings indicate that institutions—even those with strong reputations in study abroad for students with disabilities—are heavily focused on ensuring appropriate accommodations for students and only beginning to explore the design of programs through the lens of accessibility. Implications for international education units, such as the role of partnership building and commitment to Universal Design principles, are discussed.



Kouba, Karel (2020):

**Balancing Study Abroad Student Inflows and Outflows. An Institutional Perspective.**

In: *Journal of Studies in International Education* 24 (4), S. 391–408. DOI: 10.1177/1028315319842342.

**Abstract:**

The determinants of study abroad student inflows and outflows are analyzed by comparing the faculties of all Czech public universities. The article develops an institutionalist theoretical perspective that views higher education institutions not only as passive senders and receivers of students but also as active gatekeepers that regulate student flows by balancing the inflows with outflows and vice versa. The theoretical argument is developed against the backdrop of existing theories that emphasize the “push–pull” factors as key determinants of student flows. The argument is tested by regression modeling using an original data set. Inflows are associated with past outflows and vice versa, whereas the importance of push–pull factors is surprisingly small. Important policy implications of these findings as well as implications for theory development are discussed.

Kuzhabekova, Aliya (2020):

**Invisibilizing Eurasia. How North–South Dichotomization Marginalizes Post-Soviet Scholars in International Research Collaborations.**

In: *Journal of Studies in International Education* 24 (1), S. 113–130. DOI: 10.1177/1028315319888887.

**Abstract:**

Despite the growing complexity and multidimensionality of the system of international research collaborations, the colonial discourse casting the collaborative relationships in terms of polarized North–South antitheses persists and continues to exert influence on the nature of power distribution in the relationships, as well as on the conceptualization of some players in the relationship as superior donors, whereas others as inferior recipients. In this article, I demonstrate how dichotomic representation of the geopolitical entities involved in international research collaboration fails to acknowledge the existence and marginalizes a large and extremely talented academic community of Eurasian scholars, which has the potential to enrich and transform the global knowledge system if it becomes more actively and authoritatively involved in the international system of ideas exchange and knowledge generation. I argue that this invisibilization of post-Soviet research community is part of the logic of postcolonial governmentality, which creates the demand and draws the post-Soviet world into international trade in knowledge-related expert services, whereby profits and benefits from the trade are reaped by the countries, which self-categorize as the North, while undermining the potential of the former Soviet scholarly community to contribute to global knowledge production on equal terms.

Li, Fangxuan (2020):

**Factors Influencing Chinese Students’ Choice of an International Branch Campus. A Case Study.**

In: *Journal of Studies in International Education* 24 (3), S. 337–351. DOI: 10.1177/1028315319835539.

**Abstract:**

With the internationalization of education, studying at international branch campuses (IBCs) is becoming a popular choice in China. Taking Dongbei University of Finance and Economics (DUFE)—Surrey International Institute as an example, this article explores the choice criteria used by Chinese students enrolled at an IBC. Based on auto-ethnography and 46 in-depth semi-structured interviews, this study found that students’ choice of this particular IBC was influenced by personal reasons, institution image, program evaluation, and city effect. The study further proposes a model of factors that may influence Chinese students’ choice of an IBC. As the IBCs are run as for-profit ventures in an increasingly competitive environment, the marketing strategies to attract Chinese students to study at IBCs based on the findings are also discussed in this article.

Majee, Upenyu S. (2020):

**Beyond the Local–Global Binaries of Higher Education Internationalization in Post-apartheid South Africa.**

In: *Journal of Studies in International Education* 24 (1), S. 131–147. DOI: 10.1177/1028315319889869.

*Abstract:*

The article critiques the tendency in the field of international education to theorize internationalization around the impacts of and policy responses to globalization in local contexts. The central argument of the article is that South Africa's history and development prospects are so intricately bound up with those of its neighbors in the Southern African Development Community (SADC) region that it would be misleading for the country to be talked about in just national/local and global terms. To develop this argument on South Africa's roles and situation in a regionally interconnected context, I draw on insights from an institutional ethnography of a top-rated, historically White South African public university. While local–global discourses were institutionalized nationally and institutionally through policies for transformation and internationalization, the conspicuous absence of formal institutional structures for regionalization shows the limitations of local–global or global north–south dichotomies in analyzing structures that operate both above and below the level of the nation-state.

Martinez, Magdalena; Sá, Creso (2020):

**Highly Cited in the South. International Collaboration and Research Recognition Among Brazil's Highly Cited Researchers.**

In: *Journal of Studies in International Education* 24 (1), S. 39–58. DOI: 10.1177/1028315319888890.

*Abstract:*

For researchers in the global South, international recognition in science arguably involves engaging with the norms, ideas, and people leading research activity in the global North. This article explores the relationship between international research collaboration and the publication activity of highly cited researchers in Brazil, a country that exerts regional leadership in scientific production in Latin America, but remains relatively peripheral to global science. This study examined the career trajectories and publication patterns of highly cited researchers based in Brazilian universities, using Web of Science and CV data. Our findings show a pattern of international mobility among the Brazilian highly cited researchers from the early stages of their careers. With few exceptions, engagement with the academic Anglosphere is central to their achievement of highly cited status, which is derived from co-authored publications with collaborators from the United States, the United Kingdom, and Australia in large teams.

Neto, Félix (2020):

**Subjective Well-Being of Angolan Students in Portugal.**

In: *Journal of Studies in International Education* 24 (4), S. 456–473. DOI: 10.1177/1028315319861353.

*Abstract:*

This study examined the subjective well-being (SWB) of international students. International students represent one of the biggest and most relevant sojourners groups. The sample included 204 Angolan international students who attended Portuguese universities and a control group of native-born Portuguese students. Using quantitative survey research methods, the relative strengths of demographic, acculturation, and sociocultural adaptation factors in predicting two indicators of SWB (overall well-being and academic satisfaction) were explored. Angolan students revealed lower levels of well-being and higher levels of academic satisfaction than Portuguese students. As expected, language proficiency, interaction with conationals, ethnic identity, and sociocultural adaptation were significantly correlated with SWB. In addition, results indicated that acculturation and sociocultural adaptation variables accounted for a larger proportion of explained variance in SWB than demographic variables. Academic satisfaction predicted well-being beyond demographic, acculturation, and sociocultural factors. Some implications of the findings for improving SWB of international students and future research are discussed.

Nikula, Pii-Tuulia; Kivistö, Jussi (2020):

**Monitoring of Education Agents Engaged in International Student Recruitment. Perspectives from Agency Theory.**

In: *Journal of Studies in International Education* 24 (2), S. 212–231. DOI: 10.1177/1028315318825338.

*Abstract:*

This article examines the monitoring of third-party education agents employed in international student recruitment. Agency theory identifies comprehensive monitoring as one way to ensure that agents work in the principal's best interest. By analyzing best practice guidelines, this article investigates the monitoring mechanisms proposed for education providers to mitigate information asymmetry in their education agent relationships. The findings from the analysis suggest that following the existing guidelines would only allow client institutions to partially observe the behavior of their agents. Hence, education providers should be not only guided toward more intensive use of the existing techniques but also encouraged to adopt new techniques, such as mystery shopping, to better determine education agents' true behavior.

Perrotta, Daniela; Alonso, Mauro (2020):

**Cross-National Research Partnerships in International Relations. A Study of Research Groups' Practices of MERCOSUR - Re-Envisioning Scholarly Activities Beyond the Global North-Global South Divide.**

In: *Journal of Studies in International Education* 24 (1), S. 79–96. DOI: 10.1177/1028315319887390.

*Abstract:*

This article assesses international partnerships by observing research collaboration dynamics of International Relations research groups of MERCOSUR. We contest the models based on center–periphery or North–South divide as we built our assessment to explain the collaboration dynamics both in an international and regional level from the agent's point of view. We moved beyond Scientometric analysis and conducted an exploratory case study with interviews, a focus group and a questionnaire. We demonstrate that, despite asymmetries, researchers from the South do not have a passive role in the interactions and exchanges, as there is space for reciprocity and agency. We argue that integration of research through international partnerships is pragmatic and the condition of autonomy varies according to the features of the groups, their positions within the field and the prestige of their researchers.

Pineda, Pedro; Gregorutti, Gustavo; Streitwieser, Bernhard (2020):

**Emerging Decolonized Research Collaboration. The Max Planck Society and the Leibniz Association in Latin America.**

In: *Journal of Studies in International Education* 24 (1), S. 59–78. DOI: 10.1177/1028315319888891.

*Abstract:*

Analyzing the number of publications and proportion of corresponding authors of Latin American scholars and scholars from the German Max Planck Society (MPS) and the Leibniz Association (LA; 1954–2018), this article asks if North–South partnerships continue to represent power imbalances. Our bibliometric analysis indicates that (a) in comparison with the LA, the MPS's scientists published more articles with Latin American countries, led by Brazil, Chile, Argentina, and Mexico; (b) researchers from the MPS and the LA frequently took the role of corresponding author; (c) researchers from Brazil, Chile, Argentina, and Mexico primarily controlled their region's productivity, but (d) Brazil built its own multinational research networks; and (e) countries with less productivity, such as Colombia and Uruguay, are on peripheries of research networks. Our findings indicate that the decolonial perspective needs further development to identify multipolar relationships of dominance and collaboration have developed out of a dichotomy world of North–South relations.

Sabzalieva, Emma (2020):

### Negotiating International Research Collaborations in Tajikistan.

In: *Journal of Studies in International Education* 24 (1), S. 97–112. DOI: 10.1177/1028315319889345.

#### Abstract:

The fall of the Soviet Union in 1991 heralded not only the creation and opening of borders but also the rapid entry of new actors and ideas into this previously isolated part of the world. This is typified by dramatic increases in the number of international research collaborations involving an ever-growing array of actors. Yet instead of pluralizing knowledge creation and ways of knowing, intensifying processes of globalization have given rise to a “global science” system that has not flattened or significantly altered existing knowledge hierarchies, despite greater diversity in international research collaborations. In the former Soviet state of Tajikistan, this is further tempered by resourcing gaps, political controls, and cultural factors, offering a unique setting through which to explore how researchers negotiate international research collaborations. Centering the perspectives of Tajikistani researchers, the article offers new insights into the reframing of globally homogenizing models of international research collaboration.

Sandes-Guimaraes, Luisa Veras de; Ribeiro, Artur Tavares Vilas Boas; Axel-Berg, Justin Hugo; Rosso Manços, Guilherme de; Plonski, Guilherme Ary (2020):

### The Impact of International Student Mobility Programs on Brazilian Students’ Perceptions of Entrepreneurialism.

In: *Journal of Studies in International Education* 24 (2), S. 249–268. DOI: 10.1177/1028315319842345.

#### Abstract:

This article assesses whether or not students with international exchange experience return to their home countries with qualitatively different perspectives on the way universities can play a role in fostering innovation and entrepreneurship ecosystems. It includes survey data collected from 516 Brazilian undergraduates asked to rank characteristics of an entrepreneurial university on a scale from 1 to 5. The findings of this study suggest that those with international experience tended to emphasize connections between university and nonacademic partners, compared with nontraveling counterparts, who emphasized the importance of infrastructure in the university. Therefore, use of such programs may have an impact upon the structure of ST&I (Science Technology and Innovation) systems.

Skupien, Stefan; Rüffin, Nicolas (2020):

### The Geography of Research Funding. Semantics and Beyond.

In: *Journal of Studies in International Education* 24 (1), S. 24–38. DOI: 10.1177/1028315319889896.

#### Abstract:

The research on cross-national research cooperation, including the categories of Global South/North, tends to leave out the issue of research funding. However, research funders are no neutral infrastructure by and for the scientific community, but represent societal, political, or economic stakeholders, whose expectations shape funding policy goals and practices. In consequence, funders need to be integrated as intermediary organization when discussing the ideology and effects of geographic pairing. In our article, we develop and sustain the proposition that an analysis of funders’ views is imperative to understand the ways international research collaborations of unequally equipped participants are perceived, maintained, and sometimes reframed over time. Building on interview data and policy documents from six countries, we analyze the semantics employed to make sense of North–South relationships. We find that narratives from development cooperation complement and sometimes supersede the traditionally liberal meta-narrative of scientific collaborations.

Tamborra, Tracy L.; Baker, Amy Nicole; Jeffries, Sara; Tempio, Melissa; Campbell, Emelia (2020):

### Criminal Victimization Experienced While Studying Abroad. An Examination of Rates and Other Relevant Factors.

In: *Journal of Studies in International Education* 24 (5), S. 573–588. DOI: 10.1177/1028315319861354.

*Abstract:*

There are growing rates of U.S. college students studying abroad and existing literature reveals that college students experience moderate to high rates of certain types of crime; however, little is known about the victimization rates of college students while studying abroad. This is the first study known to use anonymous self-report data that examines the rates of various forms of victimization experienced while studying abroad. Findings from a sample of more than 1,000 undergraduate students studying on six continents revealed that victimization rates are low, with the exception of sexual harassment, unwanted touching, and theft. In addition, findings suggest that self-reported victimization rates vary depending upon the severity of the crime, respondents' sex, and continent of study. These findings suggest the need for further research and additional programming; suggestions are put forth.

Todoran, Corina; Peterson, Claudette (2020):

### Should They Stay or Should They Go? How the 2017 U.S. Travel Ban Affects International Doctoral Students.

In: *Journal of Studies in International Education* 24 (4), S. 440–455. DOI: 10.1177/1028315319861344.

*Abstract:*

In the wake of the U.S. government's executive orders restricting travel from six Muslim-majority countries (Iran, Libya, Somalia, Sudan, Syria, and Yemen) in January 2017, we collected data from four focus groups consisting of international doctoral students aiming to provide insight on the following research question: How do international doctoral students make sense of the U.S. political climate on their lived experiences? This article contributes to the literature by discussing a timely issue concerning international students in the United States and points out that the 2017 travel ban has affected not only international doctoral students from those banned countries but has also alarmed students from other countries, who described the climate as stressful, confusing, and hostile. Several students changed their travel plans for conferences or family visits being worried that they might not be able to reenter the United States. Other students feared the immigration rules might suddenly change and affect their visa status. Students also expressed their concerns in regard to job prospects after graduation. This article derives from a larger qualitative study exploring the experiences of international doctoral students in the U.S. academic and cultural settings.

Weinrib, Julian; Sá, Creso (2020):

### Policy Ideas and North–South Research Cooperation. The Case of Norway.

In: *Journal of Studies in International Education* 24 (1), S. 9–23. DOI: 10.1177/1028315319896756.

*Abstract:*

Geopolitically powerful actors in countries linked to the global North have historically shaped the landscape of North–South research cooperation. The literature documents not only the pervasiveness of asymmetrical relationships in North–South research cooperation but also a growing recognition among policy and academic actors of these dynamics. In this context, this study traces the invention of the Norwegian “South-South-North” partnership model, which was envisaged as an alternative to mainstream approaches and sought to foreground the needs and priorities of researchers in the global South. Employing the conceptual perspective of policy ideas, this study identifies three ideas that were constitutive of the model: humanitarianism, enlightened self-interested, and international reputation building. Functioning as broad public philosophies, these ideas underpinned the adoption of the South–South–North model as a distinctively Norwegian approach to research capacity building in the global South.

Yang, Lin; Borrowman, Luc; Tan, Meng Yoe; New, Jaa Yien (2020):

### Expectations in Transition. Students' and Teachers' Expectations of University in an International Branch Campus.

In: *Journal of Studies in International Education* 24 (3), S. 352–370. DOI: 10.1177/1028315319861348.

*Abstract:*

In the Asian context, when students transition from pre-university to an International Branch Campus of a Western university, they tend to experience significant differences in a number of areas in their first-year university lives. Because of the different educational cultures, students and teachers may have different expectations on the academic culture of university. If a misalignment of these expectations occurs, the potential for a negative learning and teaching experience is likely to increase. This article attempts to identify the gaps between the two parties to circumvent the potential problems that come with it. A survey was conducted with 728 first-year students and 124 teachers who teach first-year subjects at a Western university international branch campus in Malaysia. The results show that significant gaps exist in their expectations on course content, responsiveness, assessment support aspects, and concern for student. These findings warrant attention from the home campus as well as the branch campus. Some suggestions are offered to address these gaps in expectations.

Yang, Peidong (2020):

**Toward a Framework for (Re)Thinking the Ethics and Politics of International Student Mobility.**

In: *Journal of Studies in International Education* 24 (5), S. 518–534. DOI: 10.1177/1028315319889891.

*Abstract:*

In recent years, scholarship on international student mobility (ISM) has proliferated across various social science disciplines. Of late, an interest in the ethics and politics of ISM seems to be emerging, as more scholars begin to consider critically questions about rights, responsibility, justice, equality, and so forth that inhere in the thorny relationships between ISM stakeholders. To date, however, these discussions remain largely scattered. Bringing together these scattered conversations in literature, this article outlines elements of a framework for (re)thinking the ethics and politics of ISM. The proposed framework identifies eight key ISM actors between whom various ethical and political relationships arise, where these relationships range from the social to the institutional. Furthermore, the framework discusses four sets of concepts from the literature deemed pertinent in thinking further about ISM ethics and politics. This proposed framework is aimed at stimulating further conversations and efforts to make ISM more socially equitable and sustainable.

## Specials

Corrigendum to: Li, F. (Sam). (2019). Factors Influencing Chinese Students' Choice of International Branch Campuses. *Journal of Studies in International Education*. <https://doi.org/10.1177/1028315319835539>.

[Corrigendum] (2020). In: *Journal of Studies in International Education* 24 (3), NP1-NP1.

*Abstract:*

Li, F. (Sam). (2019). Factors Influencing Chinese Students' Choice of International Branch Campuses. *Journal of Studies in International Education*.

The above article has been revised and republished to improve accuracy and clarity of meaning. Grammatical corrections, and changes in emphasis, have been made throughout the article, including in the title, to ensure that the limitations of the research and the findings are accurately presented.

## Original Articles

Bauder, Harald (2020):

### International Mobility and Social Capital in the Academic Field.

In: *Minerva* 58 (3), S. 367–387. DOI: 10.1007/s11024-020-09401-w.

#### *Abstract:*

The relationship between the international mobility of academic researchers and social capital is complex. On the one hand, the literature suggests that social capital facilitates the international mobility of academics which, in turn, promotes the accumulation of international social capital, enhances research productivity, and advances careers. On the other hand, international mobility can isolate researchers from the national social capital in their origin countries. In this paper, I present the results of 42 interviews in Canada and Germany to examine how academics in both countries have experienced the connection between international mobility and social capital. In addition to revealing the complexity of this connection, the results show that social capital facilitates international mobility and that mobility sometimes creates social capital. However, mobility can also lead to the loss of national social capital that negatively affects early-career researchers in particular.

Bégin-Caouette, Olivier (2020):

### The Perceived Impact of Eight Systemic Factors on Scientific Capital Accumulation.

In: *Minerva* 58 (2), S. 163–185. DOI: 10.1007/s11024-019-09390-5.

#### *Abstract:*

In the global academic capitalist race, academics, institutions and countries' symbolic power results from the accumulation of scientific capital. This paper relies on the perspectives of system actors located at the institutional, national and international levels to assess the perceived importance of eight systemic factors in contributing to the comparative advantage of social-democratic regimes, namely Denmark, Finland, Norway and Sweden. A deductive thematic analysis performed on 56 transcripts and a one-way repeated-measure ANOVA (and pairwise post-hoc t-tests) performed on 324 questionnaires confirmed the hypotheses regarding the positive influence of academic traditions and internationalization. This study contributes to the development of a varieties of academic capitalism (VoAC) approach to apprehend how political-economies condition higher education systems' (HES) comparative advantage.

Berthoin Antal, Ariane; Rogge, Jan-Christoph (2020):

### Does Academia Still Call? Experiences of Academics in Germany and the United States.

In: *Minerva* 58 (2), S. 187–210. DOI: 10.1007/s11024-019-09391-4.

#### *Abstract:*

Given the significant transformations underway in academia, it is pertinent to ask whether the traditional notion of entering the profession in response to a calling is still relevant. This article draws together hitherto unconnected strands of German and Anglo-Saxon literature on callings, then analyzes biographical narratives of 40 social scientists in Germany and the United States. The comparative analysis of the timing, sources, and nature of the respondents' decision to become

academics finds that almost all exhibit a calling orientation. However, their responses no longer correspond to the classical, passive notion; instead, callings in academia have become agentic. In the context of a wider societal trend to self-realization, academia has been transformed to an activity that people pursue because they want to rather than because destiny or an external force pushes them to make such a commitment. The recognition of the social nature of callings is underscored by the significance of professional mentors and family. The unexpected predominance of similarities in the cross-national comparison of calling orientation suggests that the internationalization of academic standards and procedures and the high level of competition for few positions in both contexts may outweigh the effects of culture and tradition.

Brodin, Eva M.; Avery, Helen (2020):

### Cross-Disciplinary Collaboration and Scholarly Independence in Multidisciplinary Learning Environments at Doctoral Level and Beyond.

In: *Minerva* 58 (3), S. 409–433. DOI: 10.1007/s11024-020-09397-3.

#### *Abstract:*

The aim of this study is to investigate how patterns of collaboration and scholarly independence are related to early stage researchers' development in two multidisciplinary learning environments at a Swedish university. Based on interviews with leaders, supervisors, doctoral students, and post docs, results show how early stage researchers' development is conditioned by their relative positions in time (career stage) and space (geographical and epistemic position). Through the theoretical notions of 'epistemic living space' and 'developmental networks', four ways of experiencing the multidisciplinary learning environment were distinguished. Overall, the environments provided a world of opportunities, where the epistemic living space entailed many possibilities for cross-disciplinary collaboration and development of scholarly independence among peers. However, depending on the members' relative positions in time and space, this world became an alien world for the post docs who had been forced to become "over-independent" and find collaborators elsewhere. Moreover, it became an avoided world for absent mono-disciplinary supervisors and students who embodied "non-collective independence", away from the environments' community. By contrast, a joint world emerged for doctoral students located in the environment, which promoted their "independent positioning" and collaborative ambitions. Thus, early stage researchers' collaboration and development of scholarly independence were optimised in a converged learning space, where the temporal and spatial conditions were integrated and equally conducive for learning. Based on these results, the authors provide suggestions for how to improve the integration of scholars who tend to develop away from the community because of their temporal and spatial positions.

Calderón-Hernández, Gregorio; Jiménez-Zapata, Yudy Andrea; Serna-Gomez, Héctor Mauricio (2020):

### Barriers to University Spin-Off Creation in an Emerging Context. An Institutional Theory of Organizations Approach.

In: *Minerva* 58 (4), S. 625–650. DOI: 10.1007/s11024-020-09407-4.

#### *Abstract:*

The present study contributes elements to the literature for the understanding of those institutional factors of organizations that promote the creation of spin-offs in universities. Institutional barriers to spin-off creation within universities are addressed from a qualitative perspective. The study was carried out in Colombia, a country with low levels of innovation and entrepreneurship. Purposive and snowball sampling were employed to identify experts. Participants were selected in accordance with their extensive experience in entrepreneurship, innovation, or technology transfer. The sample size was decided by saturation criteria, and 15 interviews were selected with this method. The semi-structured interview was chosen for information collection, and a thematic analysis was employed for data interpretation. Several aspects which permit suggestions for the future spin-off research agenda were identified: perceptions of the university, teaching focus, academic cultures that reward publication as a means of knowledge transfer, restrictions for public university spin-offs in developing countries, few economic and non-economic incentives for entrepreneurship, trust as a determining cultural characteristic, and limitations to the understanding of the spin-off concept that affect their creation. These results may be extrapolated to Latin America and other developing regions with similar entrepreneurial ecosystems.



Conceição, Cristina Palma; Ávila, Patrícia; Coelho, Ana Rita; Costa, António Firmino (2020):

### European Action Plans for Science – Society Relations. Changing Buzzwords, Changing the Agenda.

In: *Minerva* 58 (1), S. 1–24. DOI: 10.1007/s11024-019-09380-7.

#### *Abstract:*

This project began with the changes in the names of the European Commission's action plans for the relationship between science and society. Analysing the main relevant documents in the last four European science policy framework programmes (FP5, FP6, FP7, H2020), we asked how much terminologies, meanings, and foci of attention have changed. A more detailed look confirms the growing importance attached to this area of intervention and the transformation in the priorities and conceptions orienting these policies. This gradual change not only largely reflects the academic debates on the need for more participatory and dialogical ways of bringing science and society closer together, but also poses new challenges when interpreting the ultimate goals and potential implications of the plans. Issues of governance of science and the transformation of scientific institutions are gaining ground compared to those of science education and public communication of science. Equally clear is the progressive incorporation of the questions of innovation and the markets into this area of political action, in a way reconfiguring the balance between aims related with democracy and participation, on the one hand, and economic competitiveness on the other. The range of social actors involved in these actions has also changed. Employing a discourse that is often vague, these plans tend to call for a certain de-differentiation of the roles traditionally attributed to the various institutions (scientific, political, business, media), valuing some, omitting others, and repositioning several.

Curran, Michaela; Bloom, Quinn; Brint, Steven (2020):

### Does Cluster Hiring Enhance Faculty Research Output, Collaborations, and Impact? Results from a National Study of U.S. Research Universities.

In: *Minerva* 58 (4), S. 585–605. DOI: 10.1007/s11024-020-09408-3.

#### *Abstract:*

For U.S. research universities, cluster hiring has become a popular means to add faculty members in university-defined priority fields. The expectation of advocates is that these faculty members will collaborate on high-impact research. Utilizing a national sample of 168 cluster-hire faculty members from eight U.S. research universities, we find statistically significant gains in research output, collaborations, and research impact from pre- to post-hire. However, these gains are not distributed equally. Some output and impact measures show greater gains for white and Asian researchers relative to under-represented minorities and for men relative to women. Significant gains in research output are associated with fields like advanced materials and health sciences for which generous external support is available. Significant research impact is associated with researchers located in wealthy, prestigious universities. The findings indicate that cluster hiring is no cure-all for fields that are disadvantaged in the competition for external funding or for non-elite universities that are disadvantaged in the competition for prestige.

Davies, Sarah R. (2020):

### Epistemic Living Spaces, International Mobility, and Local Variation in Scientific Practice.

In: *Minerva* 58 (1), S. 97–114. DOI: 10.1007/s11024-019-09387-0.

#### *Abstract:*

This article explores local variations in scientific practice through the lens of scientists' international mobility. Its aim is twofold: to explore how the notion of epistemic living spaces may be mobilised as a tool for systematically exploring differences in scientific practice across locations, and to contribute to literature on scientific mobility. Using material from an interview study with scientists with experience of international mobility, and epistemic living spaces as an analytical frame, the paper describes a set of aspects of life in science that interviewees described as being different in different places. These axes of variation were: embodied routines of research; resource levels and salaries; daily or longer-term rhythms of scientific life (and their relation to rhythms of home or family); 'efficiency' and how work time is used; degree of hierarchy; the nature of social interactions between colleagues; the purposes of research; the social and interpersonal organisation of knowledge production; and the scale or ambition of research. In presenting an exploratory overview of these variations, the article points the way for future comparative investigation of epistemic cultures through studies of international mobility.

Dusdal, Jennifer; Powell, Justin J. W.; Baker, David P.; Fu, Yuan Chih; Shamekhi, Yahya; Stock, Manfred (2020):

### University vs. Research Institute? The Dual Pillars of German Science Production, 1950-2010.

In: *Minerva* 58 (3), S. 319–342. DOI: 10.1007/s11024-019-09393-2.

#### *Abstract:*

The world's third largest producer of scientific research, Germany, is the origin of the research university and the independent, extra-university research institute. Its dual-pillar research policy differentiates these organizational forms functionally: universities specialize in advanced research-based teaching; institutes specialize intensely on research. Over the past decades this policy affected each sector differently: while universities suffered a lingering "legitimation crisis," institutes enjoyed deepening "favored sponsorship"—financial and reputational advantages. Universities led the nation's reestablishment of scientific prominence among the highly competitive European and global science systems after WWII. But sectoral analysis of contributions to science, technology, engineering, mathematics, and medical and health journal publications (1950–2010) finds that Germany's small to medium-sized independent research institutes have made significant, growing contributions, particularly in publishing in higher impact journals proportionally more than their size. Simultaneously—despite dual-pillar policy implications—the university sector continues to be absolutely and relatively successful; not eclipsed by the institutes. Universities have consistently produced two-thirds of the nation's publications in the highest quality journals since at least 1980 and have increased publications at a logarithmic rate; higher than the international mean. Indeed, they led Germany into the global mega-science style of production. Contrary to assumed benefits of functional differentiation, our results indicate that relative to their size, each sector has produced approximately similar publication records. While institutes have succeeded, the larger university sector, despite much less funding growth, has remained fundamental to German science production. Considering these findings, we discuss the future utility of the dual-pillar policy.

Falade, Bankole A.; Guenther, Lars (2020):

### Dissonance and Polyphasia as Strategies for Resolving the Potential Conflict Between Science and Religion Among South Africans.

In: *Minerva* 58 (3), S. 459–480. DOI: 10.1007/s11024-020-09403-8.

#### *Abstract:*

A majority of South Africans agrees that when science and religion conflict, religion is always right. Is this an indication the public is anti-science or does the question wording hide a more complex relationship? We examined the relationship between science and religion in South Africa using quantitative data from the World Values Survey and qualitative data from face-to-face interviews. As research on the potential conflict between science and religion is predominantly focused on Western countries, the present study focuses on Africa and compares results with those of two Western countries. Findings show that almost 76% South Africans agree that religion is always right and religious belief, social trust and education were significant predictors of this perception. Comparing findings with data from Zimbabwe, the United States and Germany, we found that while the influence of religiosity is significant across countries, comparatively, trust seems to be more of an African issue. The qualitative interviews, however, provided an elaboration of the relationship between science and religion in South Africa, indicating that choosing either science or religion is not always an outright rejection of the other. The relationships were classified as those informed by cognitive dissonance, often expressed in hierarchical associations, and those influenced by cognitive polyphasia, a complementary and transformative coexistence.

Hellström, Tomas; Hellström, Christina (2020):

### Cross-Sectoral Mobility Funding and the Challenge of Immersion. The Case of SSH.

In: *Minerva* 58 (3), S. 389–407. DOI: 10.1007/s11024-020-09398-2.

#### *Abstract:*

Project funding rarely demands much change on behalf of the recipient. In contrast, cross-sectoral mobility funding requires recipients to change their environment and often some aspects of their research. There is a need to understand the impact on the researchers' experiences as knowledge producers within such programs, as part of the broader potential and significance of cross-sectoral mobility funding. This study draws on interviews with participants of the Swedish 'Flexit' program in order to develop a framework for assessing the dynamics and efficacy of such funding instruments. To do this, we develop a framework for understanding their cognitive effects; especially their 'immersive' potential, i.e., their ability to

naturally involve the participant in their new setting. It proposes two dimensions along which such an assessment can take place: how the instrument challenges participants' knowledge production practices, and the level of immersion that participants are subject to as part of the program.

Hicks, Diana; Holbrook, J. Britt (2020):

### A Cartography of Philosophy's Engagement with Society.

In: *Minerva* 58 (1), S. 25–45. DOI: 10.1007/s11024-019-09384-3.

#### *Abstract:*

Should philosophy help address the problems of non-philosophers or should it be something isolated both from other disciplines and from the lay public? This question became more than academic for philosophers working in UK universities with the introduction of societal impact assessment in the national research evaluation exercise, the REF. Every university department put together a submission describing its broader impact in case narratives, and these were graded. Philosophers were required to participate. The resulting narratives are publicly available and provide a unique resource permitting a more comprehensive, empirically based consideration of philosophy's influence outside the academy than has hitherto been possible. This paper takes advantage of this data to develop a cartography of the ways in which philosophers engage society in their work. We identify five approaches: dissemination, engagement, provocations, living philosophy, and philosophy of X. We compare these along the six dimensions proposed by Frodeman and Briggie to characterize the ideal field philosopher. We conclude that there are multiple ways of being a field philosopher, which vary in their emphasis. This pluralism bodes well for the expansion of philosophy's societal influence, since there are routes available to suit different preferences.

Horbach, Serge P. J. M.; Halffman, Willem (2020):

### Journal Peer Review and Editorial Evaluation. Cautious Innovator or Sleepy Giant?

In: *Minerva* 58 (2), S. 139–161. DOI: 10.1007/s11024-019-09388-z.

#### *Abstract:*

Peer review of journal submissions has become one of the most important pillars of quality management in academic publishing. Because of growing concerns with the quality and effectiveness of the system, a host of enthusiastic innovators has proposed and experimented with new procedures and technologies. However, little is known about whether these innovations manage to convince other journal editors. This paper will address open questions regarding the implementation of new review procedures, the occurrence rate of various peer review procedures and their distribution over scientific disciplines or academic publishers, as well as the motivations for editors or publishers to engage in novel review procedures. It shows that in spite of enthusiastic innovation, the adoption of new peer review procedures is in fact very slow, with the exception of text similarity scanners. For now, peer review innovations appear to be restricted to specific niches in academic publishing. Analysing these niches, the article concludes with a reflection on the circumstances in which innovations might be more widely implemented.

Korom, Philipp (2020):

### How Do Academic Elites March Through Departments? A Comparison of the Most Eminent Economists and Sociologists' Career Trajectories.

In: *Minerva* 58 (3), S. 343–365. DOI: 10.1007/s11024-020-09399-1.

#### *Abstract:*

This article compares the career trajectories and mobility patterns of Nobel Laureates in economics with those of highly cited sociologists to evaluate a theory advanced by Richard Whitley that postulates a nexus between the overall intellectual structure of a discipline and the composition of its elite. The theory predicts that the most eminent scholars in internally fragmented disciplines such as sociology will vary in their departmental affiliations and academic career paths, while disciplines such as economics with strong linkages between specialties and shared standards of excellence will be dominated by a more homogeneous elite. The comparison provides strong empirical evidence in favor of Whitley's theory.

The careers of the most eminent economists are closely tied to the top five departments of the discipline, whereas the career pathways to eminence in sociology are largely unpredictable.

Laird, Frank N. (2020):

### Sticky Policies, Dysfunctional Systems. Path Dependency and the Problems of Government Funding for Science in the United States.

In: *Minerva* 58 (4), S. 1–21. DOI: 10.1007/s11024-020-09409-2.

#### Abstract:

Leaders of the scientific community have declared that American science is in a crisis due to inadequate federal funding. They misconstrue the problem; its roots lie instead in the institutional interactions between federal funding agencies and higher education. After World War II, science policy elites advocated for a system of funding that addressed what they perceived at the time as their most pressing problems of science-government relations: the need for greater federal funding for science, especially to universities, while maintaining scientific autonomy in the distribution and use of those funds. The agencies that fund university research developed institutional rules, norms, and procedures that created unintended consequences when they interacted with those of American higher education. The project system for funding, justified by peer-review and coupled with rapidly increasing R&D budgets, created incentives for universities to expand their research programs massively, which led to unsustainable growth in the demand for federal research money. That system produced spectacular successes but also created the unintended longer-term problem that demand for science funding has grown more quickly than government funding ever could. Most analysts neglect potentially painful reforms that might address these problems. This case demonstrates that successful political coalitions can create intractable long-term problems for themselves.

Langfeldt, Liv; Nedeava, Maria; Sörlin, Sverker; Thomas, Duncan A. (2020):

### Co-existing Notions of Research Quality. A Framework to Study Context-specific Understandings of Good Research.

In: *Minerva* 58 (1), S. 115–137. DOI: 10.1007/s11024-019-09385-2.

#### Abstract:

Notions of research quality are contextual in many respects: they vary between fields of research, between review contexts and between policy contexts. Yet, the role of these co-existing notions in research, and in research policy, is poorly understood. In this paper we offer a novel framework to study and understand research quality across three key dimensions. First, we distinguish between quality notions that originate in research fields (Field-type) and in research policy spaces (Space-type). Second, drawing on existing studies, we identify three attributes (often) considered important for 'good research': its originality/novelty, plausibility/reliability, and value or usefulness. Third, we identify five different sites where notions of research quality emerge, are contested and institutionalised: researchers themselves, knowledge communities, research organisations, funding agencies and national policy arenas. We argue that the framework helps us understand processes and mechanisms through which 'good research' is recognised as well as tensions arising from the co-existence of (potentially) conflicting quality notions.

Lemay, Margaret A. (2020):

### The Role of Expectations of Science in Shaping Research Policy. A Discursive Analysis of the Creation of Genome Canada.

In: *Minerva* 58 (2), S. 235–260. DOI: 10.1007/s11024-020-09395-5.

#### Abstract:

This paper examines the promise of science and its role in shaping research policy. The promise of science is characterized by expectations of science, which are embedded in promissory discourses that envision futures made possible through advances in promising science. Through a single case study of the origins of Genome Canada, the research was guided by the question: How did expectations of genomics shape the creation of Genome Canada? A conceptualization of discursive

power and expectations of genomics storylines provide the theoretical and analytical basis for an in-depth examination of the ideational effects and material impacts on research policy decisions over three years (1997–2000) that culminated in the creation of Genome Canada. Expectations of genomics storylines functioned in a complex interplay of discursive practices and dynamics among diverse policy actors within a genomics discourse-coalition to produce a range of ideational and material impacts. The expectations of genomics storylines produced powerful genomics subject-positions from which policy actors perceived their interests, identities and preferences and gained agency, which led to various material impacts, such as mobilizing support and funding, coordinating activities and transforming Canada's research policy framework. With the increasing importance of research policy to a range of broader policy priorities underpinned by expectations that science will resolve societal challenges and contribute to socio-economic benefits, this paper sheds light on how complex research policy decisions are made; it further contributes to understanding the role of promissory discourses in shaping those decisions.

Macq, Hadrien; Tancoigne, Élise; Strasser, Bruno J. (2020):

### From Deliberation to Production. Public Participation in Science and Technology Policies of the European Commission (1998–2019).

In: *Minerva* 58 (4), S. 489–512. DOI: 10.1007/s11024-020-09405-6.

#### *Abstract:*

This article investigates how a discourse about the role and value of public participation in science, technology, and innovation emerged and evolved in the research policies of the European Commission. At the beginning of the twenty-first century, two main discourses have been successively institutionalized: the first focused on participation in policy-making, while the second aimed at participation in the production of knowledge and innovation. This paper distinguishes three main institutional phases: (i) a phase dedicated to public participation in the governance of science and technology (2000–2010); (ii) a reframing period of science and technology policies by the Commission to integrate the growing emphasis on innovation (2010–2014); (iii) a period focusing on co-creation and citizen science as new ways to involve the public in science and technology (2014–today). Factors such as individual commitments of key policy actors, specific epistemic communities and institutional dynamics within the Commission played a crucial role in shaping the policies of participation. But broader factors are also essential to account for these changes. In this respect, the economic crisis of the late 2000s appears fundamental to understanding how the conception and promotion of public participation in the European science and technology policies have evolved over time. This paper thus offers new insights to the analysis of the political economy of public participation.

Mäkinen, Elina I.; Evans, Eliza D.; McFarland, Daniel A. (2020):

### The Patterning of Collaborative Behavior and Knowledge Culminations in Interdisciplinary Research Centers.

In: *Minerva* 58 (1), S. 71–95. DOI: 10.1007/s11024-019-09381-6.

#### *Abstract:*

Due to investments in interdisciplinary research endeavors, the number and variety of interdisciplinary research centers have grown exponentially during the past decades. While interdisciplinary research centers rely on varied organizational arrangements, we know little about the conditions and processes that mediate collaborative arrangements and interdisciplinary research outcomes. This study examines how different collaborative arrangements shape scholars' experiences of interdisciplinary research and understandings of interdisciplinary knowledge culminations in the context of university-based research centers. We conducted three in-depth qualitative case studies on different centers, which recruited researchers from natural sciences, medicine, and social sciences. We refer to them as the Biotech Center, the Environmental Center, and the Premature Birth Center. Our analysis of 53 interviews with interdisciplinary scholars across the three centers demonstrates that the scholars perceive particular features of the centers' collaborative arrangements as meaningful for interdisciplinary collaboration. Specifically, the center's mission, physical architecture, and leadership and task structure were seen as affecting scholars' motivation, interaction, and inclusion in the centers, which then shaped the interdisciplinary knowledge culminations. At the Biotech Center, knowledge was translated towards concrete products, at the Environmental Center knowledge was pooled together from varied fields to create new problem framings, and at the Premature Birth Center, interdisciplinary collaboration was crafted through top-down knowledge brokerage.

Martín-Alcázar, Fernando; Ruiz-Martínez, Marta; Sánchez-Gardey, Gonzalo (2020):

### Deepening the Consequences of Multidisciplinarity on Research. The Moderating Role of Social Capital.

In: *Minerva* 58 (4), S. 559–583. DOI: 10.1007/s11024-020-09404-7.

#### *Abstract:*

This paper discusses the relationship between multidisciplinarity and research performance in the academic context. The paper explains how scholars' scientific performance is affected by the multidisciplinarity of the network of colleagues with whom they conduct their research. Furthermore, this paper explores the potential moderating role of academics' social capital, assuming that relational dynamics can mitigate the potential problems associated with disciplinary diversity. To build the proposed model, the paper draws on previous literature on diversity and social capital. The resulting hypotheses are tested through a quantitative study developed on the basis of a sample of scholars in the field of management. Information about multidisciplinarity and research performance was extracted from the Scopus database, while social capital variables were measured through social network analysis techniques. Econometric estimations were used to test the proposed relationships. The findings suggest that the effect of multidisciplinarity and researchers' performance can be depicted as an inverted U-shaped relationship, so an optimal intermediate level of diversity can be found. Estimations also show that relational, cognitive and structural social capital moderates this curvilinear relationship, making it possible to achieve higher research performance at higher levels of multidisciplinarity.

Ortiga, Yasmin Y.; Chou, Meng-Hsuan; Wang, Jue (2020):

### Competing for Academic Labor. Research and Recruitment Outside the Academic Center.

In: *Minerva* 58 (4), S. 607–624. DOI: 10.1007/s11024-020-09412-7.

#### *Abstract:*

Increasing competition among research universities has spurred a race to recruit academic labor to staff research teams, graduate programs, and laboratories. Yet, often ignored is how such efforts entail negotiating a pervasive hierarchy of universities, where elite institutions in the West continue to attract the best students and researchers across the world. Based on qualitative interviews with 59 Singapore-based faculty, this paper demonstrates how migrant academics in competitive universities outside the West take on the burden of seeking other ways of attracting academic labor into their institutions, often resorting to ethnic and transnational ties to circumvent limits imposed by a hierarchical higher education landscape. Those unable to utilize these transnational strategies are less likely to maintain the pace of productivity expected by their institutions, heightening anxieties regarding tenure and promotion. In examining the Singapore case, this paper reveals the disjunctures between the increasing pressures of growing universities eager to compete in a global higher education system, and the everyday realities of academic production within these institutions.

Osley-Thomas, Robert (2020):

### The Closing of Academic Departments and Programs. A Core and Periphery Approach to the Liberal Arts and Practical Arts.

In: *Minerva* 58 (2), S. 211–233. DOI: 10.1007/s11024-019-09389-y.

#### *Abstract:*

Did the liberal art disciplines at American universities have the highest failure rate between the 1970s and the early 2000s? Important theoretical traditions indeed believe that the liberal arts are the most threatened disciplines in the academy, while other theories have differing views. This paper reexamines the vulnerability of academic disciplines by assessing new data. It focuses on the closing of academic departments and programs, and it uses event history analysis to show that practical arts departments and programs failed at a much higher rate than liberal arts departments and programs. In doing so, this paper raises important questions about how American universities are changing during a time of budget cuts and retrenchment.

Rommetveit, Kjetil; van Dijk, Niels; Gunnarsdóttir, Krístrún (2020):

### Make Way for the Robots! Human- and Machine-Centricity in Constituting a European Public-Private Partnership.

In: *Minerva* 58 (1), S. 47–69. DOI: 10.1007/s11024-019-09386-1.

#### *Abstract:*

This article is an analytic register of recent European efforts in the making of ‘autonomous’ robots to address what is imagined as Europe’s societal challenges. The paper describes how an emerging techno-epistemic network stretches across industry, science, policy and law to legitimize and enact a robotics innovation agenda. Roadmap is the main metaphor and organizing tool in working across the disciplines and sectors, and in aligning these heterogeneous actors with a machine-centric vision along a path to make way for ‘new kinds’ of robots. We describe what happens as this industry-dominated project docks in a public–private partnership with pan-European institutions and a legislative initiative on robolaw. Emphasizing the co-production of robotics and European innovation politics, we observe how well-known uncertainties and scholarly debates about machine capabilities and human–machine configurations, are unexpectedly played out in legal scholarship and institutions as a controversy and a significant problem for human-centered legal frameworks. European robotics are indeed driving an increase in speculative ethics and a new-found weight of possible futures in legislative practice.

Veletanlić, Emina; Sá, Creso (2020):

### Implementing the Innovation Agenda. A Study of Change at a Research Funding Agency.

In: *Minerva* 58 (2), S. 261–283. DOI: 10.1007/s11024-020-09396-4.

#### *Abstract:*

With the rise of an innovation agenda in science policy, previous studies have identified a shift in how the state delegates responsibility to funding agencies in order to change the behaviour of the scientific community. This paper contributes to this literature through a micro-level study of how one of Canada’s largest research funding agencies, the Natural Sciences and Engineering Research Council (NSERC), has changed resource allocation for research over 25 years. Our study foregrounds research funding agencies as key sites for examining the reconfiguration of the relationship between the state and science, as expressed in programmatic and resource allocation decisions. Through analysis of an original dataset compiled from NSERC’s funding and documentary data, we demonstrate the relationship between the introduction of innovation objectives in funding instruments, the adoption of new delegation modes to guide resource allocation, and changes in funding among research fields over time. Our study empirically demonstrates the cumulative effect of programmatic and funding decisions in a major agency, going beyond previous accounts of more general trends at the national level.

Winter, Katarina (2020):

### “I’ll Look Into it!”. Lubricants in Conversational Coproduction.

In: *Minerva* 58 (2), S. 285–307. DOI: 10.1007/s11024-020-09394-6.

#### *Abstract:*

This study investigates the interaction between civil servants and politicians in a planning committee in a Swedish county council. As the committees are venues for preparation of future decision-making, civil servants and others are invited to inform and report to the politicians on different topics. The aim is to explore this local interaction process based on an analysis of requests and responses. It is shown that the communication between civil servants and politicians is pervaded by sociability in the form of conversational routines. The article aims to recognize this sociability as an intrinsic part of knowledge coproduction processes. Civil servants and politicians negotiate different types of professional and common knowledge through routines that dislocate time, responsibility, roles, and protocol order. These lubricants – important but often circumvented in studies of policy-making – are explored as instances of conversational coproduction.

Wright, Jack; Mata, Tiago (2020):

### Epistemic Consultants and the Regulation of Policy Knowledge in the Obama Administration.

In: *Minerva* 58 (4), S. 1–24. DOI: 10.1007/s11024-020-09411-8.

#### Abstract:

The agencies of the government of the United States of America, such as the Food and Drug Administration or the Environmental Protection Agency, intervene in American society through the collection, processing, and diffusion of information. The Presidency of Barack Obama was notable for updating and redesigning the US government's information infrastructure. The White House enhanced mass consultation through open government and big data initiatives to evaluate policy effectiveness, and it launched new ways of communicating with the citizenry. In this essay we argue that these programs spelled out an emergent epistemology based on two assumptions: dispersed knowledge and a critique of judgment. These programs have redefined the evidence required to justify and design regulatory policy and conferred authority to a new kind of expert, which we call epistemic consultants.

Yang, Chih-Yuan (2020):

### Performing Public Good. The Statecraft of Objective and Optimal FIT.

In: *Minerva* 58 (3), S. 435–458. DOI: 10.1007/s11024-020-09400-x.

#### Abstract:

Technoscientific-legal rationality in policy-making is the statecraft of creating a 'factual reality' which in effect co-produces a combined technical and socio-political reality for people and institutions, and at the same time expresses the need for representation in politics. Concentrating on the deliberation proceedings and calculations of the Taiwanese Feed-In Tariff (FIT) Committee deciding on a 'reasonable tariff', this article explores the way that technoscientific knowledge-based deliberation, with tacitly enacted roles and boundaries, seriously constrains the possible forms and meanings of renewable energy (RE) and the notions of public interest emerging from the process. It argues the expert committee which is backed up by expert authority and manifests in a bureaucratic-managerial style is best portrayed as a mechanism of controversy settlement and depoliticisation, by distinguishing the 'core technical issues' from 'the others', and by calculating 'relevant' and 'objective' quantitative factors and values. The deliberation process reflects an incessant intention to purify the decision made by the committee and to eliminate the remaining discretion of the experts from wider visibility, which results in an overwhelming preference for mathematical technicality — the public's 'best interest' is translated into the 'reasonableness' of the FIT, which is largely built on a designed formula for steering tariffs among the sea of uncertainty, by taking the average or median value of alternative FIT calculations. I argue this deliberation is democratically envisioned yet technocratically enacted, aiming to depoliticise the decisions made on tariff rates and thus preventing further controversy.

## Reviews

Brown, Mark B. (2020):

Gil Eyal, *The Crisis of Expertise*, Polity Press, Cambridge, UK, 2019, 190 pp, ISBN: 978-0745665788 (pbk).

[Review]. In: *Minerva* 58 (4), S. 657–660. DOI: 10.1007/s11024-020-09417-2.

Cai, Yuzhuo (2020):

'Innovation in Innovation': A Review of Henry Etzkowitz and Chunyan Zhou, *The Triple Helix: University–Industry–Government Innovation and Entrepreneurship* (Second Edition), Routledge, Abingdon, 2017, 328 pp.

[Review]. In: *Minerva* 58 (4), S. 651–656. DOI: 10.1007/s11024-020-09418-1.



Fleck, Christian (2020):

Christopher Adair-Toteff and Stephen Turner (eds.), *The Calling of Social Thought: Rediscovering the Work of Edward Shils*, Manchester University Press, Manchester, 2019, 270 pp., ISBN 978-1-5261-2005-2.

[Review]. In: *Minerva* 58 (3), S. 481–483. DOI: 10.1007/s11024-020-09410-9.

Martin, Joseph D. (2020):

Thomas C. Lassman, *Edward Condon's Cooperative Vision: Science, Industry, and Innovation in Modern America*, University of Pittsburgh Press, Pittsburgh, 2018, 320 pp., \$49.00 (hardcover).

[Review]. In: *Minerva* 58 (2), S. 315–317. DOI: 10.1007/s11024-020-09406-5.

Muller, Johan (2020):

'From Excellence to Relevance?' A Review of Erika Kraemer-Mbula, Robert Tijssen, Matthew L. Wallace and Robert McLean (eds.), *Transforming Research Excellence: New Ideas from the Global South*, Somerset West, South Africa: African Minds, 2020.

[Review]. In: *Minerva* 58 (3), S. 485–488. DOI: 10.1007/s11024-020-09415-4.

Williams, Logan D. A. (2020):

'From Blindness to Light': A Review of Benoît Godin and Dominique Vinck (eds.), *Critical Studies of Innovation: Alternative Approaches to the Pro-Innovation Bias*, Cheltenham, UK: Edward Elgar Publishing, 2017.

[Review]. In: *Minerva* 58 (2), S. 309–314. DOI: 10.1007/s11024-020-09402-9.

## Editorials

Delmestri, Giuseppe; Wezel, Filippo Carlo; Goodrick, Elizabeth; Washington, Marvin (2020):

**The Hidden Paths of Category Research. Climbing new heights and slippery slopes.**

[Introduction]. In: *Organization Studies* 41 (7, SI), S. 909–920. DOI: 10.1177/0170840620932591.

*Abstract:*

Category research has flourished over the last decade. While this body of work has prioritized the behavioral and economic consequences of stable classification systems, the papers in this special issue challenge this orientation by highlighting the importance of category dynamics for improving our understanding of markets and fields. We show how these papers support the emergence of category maintenance, the recategorization of mature categories, and the consolidation of new categories as understudied phenomena and as the next research challenges to pursue. After connecting the main findings of the papers in this special issue into a unified process model, we discuss various alternative pathways to further explore those challenges. We also point to how this theoretical endeavor runs on slippery slopes and might lead to cul-de-sacs such as terminological balkanization. We conclude by highlighting the need for developing a more comprehensive understanding of category dynamics.

Fotaki, Marianna; Altman, Yochanan; Koning, Juliette (2020):

**Spirituality, Symbolism and Storytelling in Twentyfirst-Century Organizations. Understanding and addressing the crisis of imagination.**

[Introduction]. In: *Organization Studies* 41 (1), S. 7–30. DOI: 10.1177/0170840619875782.

*Abstract:*

This article introduces the Special Issue concerned with organizational spirituality, symbolism and storytelling. Stressing the growing scholarly interest in these topics, the article makes a two-fold contribution. First, it critically assesses their development over time while identifying the emerging trends and new ways in which spirituality, symbolism and storytelling are taken up in management and organization studies. We make a case for utilizing their promise to transcend the epistemic boundaries and extend the scope of our academic practice beyond self-referential approaches or ‘fashionable’ topics. Second, it links them to what we term the current crises of imagination, calling into question extant institutional and organizational paradigms, as well as the theoretical frames we rely on in our teaching and research. The multiple crises we face – economic, financial, food, water, energy, climate, migration and security – we suggest, are partly due to the fragmentation of meaning that bedevils our scholarship and, implicitly, the failure of our collective imagination. Reaching across foundational disciplines and core methodologies, we bring into the conversation the interlocking fields of spirituality, symbolism and storytelling, highlighting their potential for addressing the cardinal challenges we face as citizens of this world as much as organizational scholars.

Kolb, Darl G.; Dery, Kristine; Huysman, Marleen; Metiu, Anca (2020):

**Connectivity in and around Organizations. Waves, tensions and trade-offs.**

[Introduction]. In: *Organization Studies* 41 (12, SI), S. 1589–1599. DOI: 10.1177/0170840620973666.

*Abstract:*

Connectivity has become the foundation for organizing as it increasingly underpins and defines the way we live and work. Notwithstanding all the advances in connectivity within organizations, there are even more pervasive changes between and around organizations. In a digital world, more and more of us are working anytime, anyplace, and companies deliver value by better connecting with customers and external partners within digital ecosystems. In this introduction to the Special Issue, we summarize four waves of connectivity – globalization, socialization, personalization and datafication – that combine to create opportunities and challenges for contemporary organizations. We then introduce the papers in the special issue and discuss their contributions to theory and practice. Finally, we draw upon currently emerging challenges to suggest enduring tensions and trade-offs for connectivity research in the future.

## Original Articles

Alexiev, Alexander; Volberda, Henk; Jansen, Justin; van den Bosch, Frans (2020):

### Contextualizing Senior Executive Advice Seeking. The Role of Decision Process Comprehensiveness and Empowerment Climate.

In: *Organization Studies* 41 (4), S. 471–497. DOI: 10.1177/0170840619830128.

*Abstract:*

Senior executives can seek advice both inside and outside the boundaries of the organization and that can affect the choices made and the overall direction of the organization. Perceived environmental dynamism is a primary antecedent of this behaviour as it substantially increases the information-processing demands when solving strategic decision problems. We drew on two ‘fit’ perspectives to theorize about the organizational contingencies of this relationship. First, fit as mediation develops when executive advice seeking takes place after a comprehensive decision process has been used in response to an increase in perceived environmental dynamism. Decision process comprehensiveness fully mediates the relationship between perceived environmental dynamism and internal advice seeking and partially mediates the relationship between perceived environmental dynamism and external advice seeking. Second, fit as moderation develops when empowerment climate weakens this indirect relationship. Decision process comprehensiveness and empowerment climate function as Edgeworth-Pareto substitutes showing that, with regard to senior executive advice seeking, there is negative synergy between decision process comprehensiveness and empowerment climate. The results of our study support the notion that there is a link between information processing at the individual and organizational level, and, more importantly, suggest that power sharing within organizations can reduce the need for senior executive advice seeking when there is decision process comprehensiveness. By elaborating the information-processing perspective on advice seeking and introducing theory on organizational structural power interdependencies, we take the first steps towards a more contextualized and realistic understanding of this phenomenon.

Arenas, Daniel; Murphy, Matthew; Jauregui, Kety (2020):

### Community Influence Capacity on Firms. Lessons from the Peruvian Highlands.

In: *Organization Studies* 41 (6), S. 737–765. DOI: 10.1177/0170840618814567.

*Abstract:*

While much research has studied corporate management of stakeholders, this research focuses on the capacity of stakeholders to influence firms. Using a grounded theory research design, we draw on a comparative analysis of the relations between two neighbouring communities in the Peruvian highlands and the mining project that affects them. Our analysis suggests that control of resources and structural configurations are insufficient for explaining divergent actions and influence capacity, and highlights the role played by factors that we refer to as community vigour and the community’s pool of knowledge. We argue that these factors explain a community’s ability to develop an informed and shared interpretation of the situation in relation to firms and, therefore, to identify and carry out actions that will be more likely to influence firms to the community’s satisfaction. Thus, community vigour and pool of knowledge are additional sources of influence capacity. These findings contribute to the literature on stakeholder influence by providing a conceptual model that explains variance in stakeholder influence capacity that theories of resource dependence, structural position or network centrality do not fully explain.

Bell, Emma; Vachhani, Sheena J. (2020):

### Relational Encounters and Vital Materiality in the Practice of Craft Work.

In: *Organization Studies* 41 (5), S. 681–701. DOI: 10.1177/0170840619866482.

#### Abstract:

Practice-based studies of organization have drawn attention to the importance of the body as a site of knowledge and knowing. However, relational encounters between bodies and objects, and the affects they generate, are less well understood in organization studies. This article uses new materialist theory to explore the role of affect in embodied practices of craft making. It suggests that craft work relies on affective organizational relations and intensities that flow between bodies, objects and places of making. This perspective enables a more affective, materially inclusive understanding of organizational practice, as encounters between human and nonhuman entities and forces. We draw on empirical data from a qualitative study of four UK organizations that make bicycles, shoes and hand-decorated pottery. We track the embodied techniques that enable vital encounters with matter and the affective traces and spatial, aesthetic atmospheres that emerge from these encounters. We suggest that a concern with the vitality of objects is central to the meaning that is attributed to craft work practices and the ethical sensibilities that arise from these encounters. We conclude by proposing an affective ethics of mattering that constructs agency in ways that are not confined to humans and acknowledges the importance of orientations towards matter in generating possibilities for ethical generosity towards others.

Blanco-Gracia, Antonio (2020):

### Assange vs Zuckerberg. Symbolic Construction of Contemporary Cultural Heroes.

In: *Organization Studies* 41 (1), S. 31–51. DOI: 10.1177/0170840618789203.

#### Abstract:

Myth is a meta-language that shapes our cultures and the way we individually and collectively make sense of reality. This paper presents the methodologies of French anthropologist and sociologist Gilbert Durand as a way to unveil how ancient myths contribute to the symbolic construction of societal leaders in times of crisis. To do so, it analyses the controversy of the selection of Time magazine's Person of the Year, which confronted the figures of Julien Assange and Mark Zuckerberg. The myth analysis of their Wikipedia biographies will show that despite the fact these two personalities are considered almost opposites, the structure of the collective shared narratives about each of them follow the structure of the myth of Hermes, one shaping the grand narrative of the postmodern era. Realizing why and how the myth of Hermes promotes our contemporary leaders, sometimes apparent antagonists, contributes to better understanding of the unconscious drives of their symbolic construction, and enabling critical engagement with the rationales of their emergence.

Bouilloud, Jean-Philippe; Perezts, Mar; Viale, Thierry; Schaepelynck, Valentin (2020):

### Beyond the Stable Image of Institutions. Using Institutional Analysis to Tackle Classic Questions in Institutional Theory.

In: *Organization Studies* 41 (2), S. 153–174. DOI: 10.1177/0170840618815519.

#### Abstract:

Although institutions are subject to constant change, we retain a stable image of them. Consequently, should they be considered as objects or processes? Notwithstanding its success, institutional theory still faces theoretical challenges to account simultaneously for change and stability, agency and structure. Following recent calls to integrate other perspectives on how we think about institutions, we draw on institutional analysis - a stream that has flourished in Europe and Latin America - to propose a radical and comprehensive conception of the institution as a locus of tension between the instituting (by which institutions are formed) and the instituted (temporarily stabilized forms). Since there is permanent tension between them, the institution itself can never be a stable object. It is constantly evolving, being either reinforced or destabilized. This research enriches the theoretical dialogue between organizational institutionalism and institutional analysis, two streams that have hitherto displayed little cross-fertilization. First, it contributes to rethinking the nature of institutions by emphasizing the role of the social imaginary, thus improving our understanding of the under-theorized role of imagination in institutionalization processes. Second, by placing the dynamic tension between the instituted and the instituting at the core of institutional theories, we answer calls to reclaim their missing critical dimension. Furthermore, this

results in a methodological implication: the clinical approach of institutional analysis involving the intervention of researchers allows us to further embed institutional theories in organizational practice.

Bree, Martin de; Stoopendaal, Annemiek (2020):

### De- and Recoupling and Public Regulation.

In: *Organization Studies* 41 (5), S. 599–620. DOI: 10.1177/0170840618800115.

#### Abstract:

The concept of decoupling refers to the gap between the formal and the actual world in organizations in which a policy is formally introduced but not actually implemented and effective. Although the phenomenon of decoupling in organizations has been studied widely since the late 1970s, little is known about the reverse process of recoupling. Little is also known about the abilities of public regulators to discover decoupling in regulated organizations and to promote the recoupling that is necessary to diminish the gap between the formal and the actual world.

In an experimental project of the Dutch Health and Youth Care Inspectorate, we ethnographically followed how this public regulator changed the focus from prescriptive regulation based on quality and safety indicators to the supervision of the management system of a regulated organization. We call this type of regulation system-based regulation.

We found that, by using system-based regulation, a regulator can identify several forms of decoupling that have not been recognized in earlier research. Interestingly, we found indications that, by applying SBR and thus recognizing decoupling, a process of recoupling was supported. With SBR the government can reclaim its influence on the meta level while maintaining the level of freedom of management at the organizational level. Instead of aiming for more or stricter regulation, the government could shift its role to meta-regulation, meaning that the public regulator redefines its role as an assessor and stimulator of the quality of governance in terms of self-regulation. Implications for theory and practice are discussed.

Brummans, Boris H. J. M.; Hwang, Jennie M.; Cheong, Pauline Hope (2020):

### Recycling Stories. Mantras, Communication, and Organizational Materialization.

In: *Organization Studies* 41 (1, SI), S. 103–126. DOI: 10.1177/0170840618819033.

#### Abstract:

Religious non-governmental organizations (RNGOs) are becoming powerful organizational actors, but how are these organizations enacted through the communicative practices of their members? To address this question, this article offers a conceptual framework for investigating how the terse retelling of an inspirational organizational story, encapsulated in a mantra, contributes to materializing a Buddhist NGO's ethos and worldview. The value of this framework is subsequently demonstrated through an in-depth naturalistic case study of a mantra's constitutive force in the enactment of a large international Buddhist NGO that is increasingly focused on environmental protection. By showing how a mantra acts as a textualization, substantiation, and invocation device in mass, social media, and face-to-face communication, this study makes important contributions to the literature on the intersection between religion and organization as well as the communicative constitution of organizations.

Bryer, Alice (2020):

### Making Organizations More Inclusive. The Work of Belonging.

In: *Organization Studies* 41 (5), S. 641–660. DOI: 10.1177/0170840618814576.

#### Abstract:

As corporate discourses of 'openness' and 'inclusion' become increasingly ubiquitous, an important task for organization studies today is identifying how actors might make their organizations more inclusive. The paper aims to understand why and how practices that often embody the exclusionary aspects of organizations could develop to foster a sense of belonging. Studying alternative organizations, such as cooperatives and social movements, where the members may often be more willing and able to develop such practices, could offer lessons about the possibilities and pitfalls of organizational

belonging and inclusion more generally. The paper focuses on discussions of financial targets and budgets, practices that confront the members with tensions between their social aims and the need to survive in a competitive market, and that may enact capacities to work through these and other related difficulties. A case of a Spanish cooperative, analysed using a Latourian anthropological approach, demonstrates two main contributions. First, it builds positively on critical assessments of the pitfalls of corporate constructions of belonging, which seek employee commitment despite persistently exclusionary practices. The case demonstrates how the practical work of belonging can enable organizations to become more inclusive and 'liveable'. Second, it shows that organizational practices are neither inherently exclusionary, nor intrinsically inclusive. Their role depends on the context and specific socially orientated abilities among the members, which can develop through their interactions with budgets.

Carton, Guillaume (2020):

### How Assemblages Change When Theories Become Performative. The case of the Blue Ocean Strategy.

In: *Organization Studies* 41 (10), S. 1417–1439. DOI: 10.1177/0170840619897197.

#### Abstract:

Assemblages are the actors, artefacts or practices that are intertwined with and co-produce theories. Despite being at the core of the performativity process, assemblages have been overlooked in recent performativity studies. Thus, this study examines how assemblages are changed by theories during performativity. It builds on the case of the historical development of the Blue Ocean Strategy: a management theory that proposes the creation of new market spaces, rather than competing within existing ones. The study shows a process model in which the theory changes the assemblages that change reality and enlarges its scope in turn. It offers implications both for performativity and for practice.

Child, Curtis (2020):

### Whence Paradox? Framing Away the Potential Challenges of Doing Well by Doing Good in Social Enterprise Organizations.

In: *Organization Studies* 41 (8), S. 1147–1167. DOI: 10.1177/0170840619857467.

#### Abstract:

Scholars and critics tend to regard social enterprise as a paradoxical organizational form. And yet those who are closest to the apparent paradox in at least two prominent social enterprise industries—fair trade and socially responsible investing—are not inclined to regard their work as paradoxical. How is this so? Drawing upon, and then extending, the sensemaking literature, I argue that practitioners of social enterprise do not experience their working conditions as paradoxical because they frame away the potentially paradoxical elements of their work. Specifically, they employ three frames: looking at the big picture, engaging with potentially paradoxical conditions rather than turning from them, and making favorable comparisons that ease the paradoxical strain. These insights form the basis of a refined model of sensemaking in organizations, which accounts not only for how members of organizations deal with paradox but also how they come to recognize (or frame away) paradox in the first place.

Chliova, Myrto; Mair, Ohanna; Vernis, Alfred (2020):

### Persistent Category Ambiguity. The case of social entrepreneurship.

In: *Organization Studies* 41 (7, SI), S. 1019–1042. DOI: 10.1177/0170840620905168.

#### Abstract:

Literature on categories recognizes that in the early stages of a category, ambiguity can arise from divergent frames used to define the category. Yet it also largely expects this ambiguity to be either temporary, or else detrimental to the survival and evolution of the category. In this study, we demonstrate and explain how, alternatively, category ambiguity can persist when multiple frames continue to be applied to a category as it progresses into maturity. Drawing on an in-depth qualitative study of the case of social entrepreneurship, we examine how and under what conditions this outcome occurs. We specify two co-occurring conditions that prompt category stakeholders to shift their framing from exclusive to inclusive,

enabling category ambiguity to persist. We furthermore show how the use of category frames that draw from pre-existing resonant categories supports the persistence of category ambiguity. We contribute to literature on categories by clarifying the antecedents of category evolution towards a trajectory of persistent ambiguity.

Comeau-Vallee, Mariline; Langley, Ann (2020):

### The Interplay of Inter- and Intraprofessional Boundary Work in Multidisciplinary Teams.

In: *Organization Studies* 41 (12, SI), S. 1649–1672. DOI: 10.1177/0170840619848020.

#### Abstract:

The challenges of managing interprofessional boundaries within multidisciplinary teams are well known. However, the role of intraprofessional relations in influencing the dynamics of interprofessional collaboration remain underexplored. Our qualitative study offers a fine-grained analysis of the interplay between inter- and intraprofessional boundary work among three professional groups in a multidisciplinary team over a period of two years. Our contribution to the literature is threefold. First, we identify various forms of “competitive” and “collaborative” boundary work that may occur simultaneously at both inter- and intraprofessional levels. Second, we reveal the dynamic interplay between inter- and intraprofessional boundary negotiations over time. Third, we theorize relationships between the social position of professional groups, and the uses and consequences of competitive and collaborative boundary work tactics at intra- and interprofessional levels. Specifically, we show how intraprofessional conflict within high-status groups may affect interprofessional dynamics, we reveal how intraprofessional and interprofessional boundaries may be mobilized positively to support collaborative relations, and we show how mobilization within lower-status groups around interprofessional boundary grievances can paradoxically lead to further marginalization.

Coslor, Erica; Crawford, Brett; Leyshon, Andrew (2020):

### Collectors, Investors and Speculators. Gatekeeper use of audience categories in the art market.

In: *Organization Studies* 41 (7), S. 945–967. DOI: 10.1177/0170840619883371.

#### Abstract:

This research examines gatekeepers’ categorization work to assess and sort audience members. Using a multi-sited ethnography and interpretivist qualitative lens, we explore how high-value art gallerists sort buyers via categories, but also encourage conformity with preferred audience categories, both for artistic consecration goals and to discourage disruptive speculation. Categories served as reference points, with preferred and problematic buyer categories providing a discursive socialization tool, but also informing gatekeeping strategies, for example, problematic behaviors and buyer categories led to value-protecting gatekeeping and exclusion, often justified in moral terms. Monitoring continued throughout the relationship, with decisions considered both fair and necessary for gallerists’ professional practice. Gatekeeping decisions included long-term temporal considerations, prompting strategies including ‘placement’, monitoring and audience recategorization. This extends gatekeeping beyond simply passing muster at the ‘gate’. We also illustrate the dynamic and fluid nature of hidden categories, which provide gatekeepers with heightened abilities to punish perceived wrongdoing.

Creed, W. E. Douglas; Taylor, Steven S.; Hudson, Bryant Ashley (2020):

### Institutional Aesthetics. Embodied Ways of Encountering, Evaluating, and Enacting Institutions.

In: *Organization Studies* 41 (3), S. 415–435. DOI: 10.1177/0170840619835254.

#### Abstract:

The cognitive turn in institutional theory has led to the systematic neglect of people’s sensory capacities. In this paper we offer a cross-level theory of the role in institutional processes of sensory and evaluative forms of knowledge. Called here the aesthetic mode, this way of knowing combines humans’ innate sensory capacity to engage the world with their learned capacity to evaluate what they encounter. We argue that people evaluate the world’s natural, social, and spiritual phenomena through the lenses of a personal aesthetic, each person’s distinct internalization of the institutional aesthetic codes of the communities in which they are embedded. A personal aesthetic informs and animates people’s internal conversations as they evaluate the social arrangements they encounter and deliberate over how they should participate in

the institutional processes of maintaining, disrupting, or creating social arrangements. Attending to people's aesthetic ways of knowing positions us to better understand when, why, and how people deliberate about institutional values and arrangements and choose to engage in purposive institutional work. It also offers a way of conceptualizing and examining the reflexivity said to be at the heart of embedded agency. We discuss the implications for understanding of institutional work, institutional biography, and of how people experience institutional disruption and re-creation.

Cunliffe, Ann L.; Locke, Karen (2020):

### Working With Differences in Everyday Interactions through Anticipational Fluidity. A Hermeneutic Perspective.

In: *Organization Studies* 41 (8), S. 1079–1099. DOI: 10.1177/0170840619831035.

#### Abstract:

This paper sheds light on an issue we all face, how to work with differences encountered in our everyday interactions with each other when the outcome of the exchange is not simply up to us. Our contribution lies in proposing the notion of anticipational fluidity, of finding ways of relating and responding to others as we orient ourselves to each other and to what might happen next within the moment of conversation. Situated in a hermeneutic lens that highlights the interplay of interpretations in unfolding responsive moments, we integrate the work of Shotter and Ricoeur with our interpretation of empirical texts generated from an ethnographic inquiry of academic/practitioner collaboration. We suggest that anticipational fluidity encompasses open work, difference-making and tentative intentionality, and elaborate these sensitizing resources by putting readers within unfolding moments of a meeting where differences are addressed.

Demers, Christiane; Gond, Jean-Pascal (2020):

### The Moral Microfoundations of Institutional Complexity. Sustainability implementation as compromise-making at an oil sands company.

In: *Organization Studies* 41 (4), S. 563–586. DOI: 10.1177/0170840619867721.

#### Abstract:

Research on institutional complexity has overlooked the fact that moral judgements are likely involved when individuals face a plurality of logics within organizations. To analyse the moral microfoundations of institutional complexity, we build on Boltanski and Thévenot's economies of worth framework and explore how individuals produce moral judgement in response to the institutional complexity triggered by a major shift in the sustainability strategy within an oil sands company. Fifty-two interviews with employees, managers and executives reveal how actors rely on four types of justification that combine different moral principles and related objects with the aim of either forming (sheltering and solidifying work) or challenging (fragilizing and deconstructing work) a new compromise with regard to sustainability within the organization. Our results show how the economies of worth framework can enrich institutional complexity theory by bringing morality back into the analysis as a core dimension of inhabited institutions while advancing the microanalysis of compromise-making around sustainability in organization studies.

Dennissen, Marjolein; Benschop, Yvonne; van den Brink, Marieke (2020):

### Rethinking Diversity Management. An Intersectional Analysis of Diversity Networks.

In: *Organization Studies* 41 (2), S. 219–240. DOI: 10.1177/0170840618800103.

#### Abstract:

The aim of this paper has been to further our knowledge on diversity management practices by applying an intersectionality lens to single category diversity networks. Diversity networks are in-company networks intending to inform and support employees with similar social identities. Their focus on single identity categories is exemplary of current diversity management practices. We shed light on the strategies of network members to deal with their multiple identities vis-a-vis their network membership (structural intersectionality) and on the processes that hamper collaboration and coalition building between diversity networks (political intersectionality). Our intersectional analysis shows how the single category structure of diversity networks marginalizes members with multiple disadvantaged identities and reveals how



collaborations between diversity networks are hindered by processes of preserving privilege rather than interrogating it. We contribute to the literature on diversity management practices by highlighting how dynamic processes of privilege and disadvantage play a role in sustaining intersectional inequalities in organizations.

Deslandes, Ghislain (2020):

### Weak Theology and Organization Studies.

In: *Organization Studies* 41 (1, SI), S. 127–139. DOI: 10.1177/0170840618789209.

#### Abstract:

This article demonstrates the pre-eminent position which the term *oikonomia* (household management) occupied in the first few centuries of Christian theology, opening up avenues which have been left virtually unexplored by modern management scientists. This first level of analysis reveals that the essence of management is inevitably associated with the concepts of non-power, burden and weakness. I then pursue this line of inquiry to look at the role occupied by the notion of 'weakness' in the postmodern theology developed by Gianni Vattimo and John Caputo, before extending the scope of this analysis to contemporary debates in the field of organization studies, revealing an entirely different vision of the figure of 'manager' from that championed in post-Taylorian 'scientific' management, with its emphasis on the behavioural and technical aspects of her/his role. The article concludes by looking at the theoretical and practical implications of 'weak' management.

Empson, Laura; Alvehus, Johan (2020):

### Collective Leadership Dynamics among Professional Peers. Co-constructing an unstable equilibrium.

In: *Organization Studies* 41 (9), S. 1234–1256. DOI: 10.1177/0170840619844291.

#### Abstract:

Professional service firms (PSFs) are characterized by contingent and contested power relations among an extended group of professional peers. Studies of such firms can therefore yield important insights for the literatures on collective leadership and leader-follower relations. Yet to date PSF scholars have neglected the topic of leadership, and leadership scholars have neglected the context of PSFs. Based on 102 interviews across the consulting, accounting and legal sectors, we identify three relational processes through which professional peers co-construct collective leadership: legitimizing, negotiating and manoeuvring. We demonstrate how the relational processes taken together constitute an unstable equilibrium, both in the moment and over time, emphasizing how leadership in PSFs is inherently contested and fragile. Our model contributes to theories of collective leadership and leader-follower relations by foregrounding the power and politics that underlie collective leadership. We highlight the significance of the individual leader within the collective. We challenge assumptions concerning the binary nature of leadership and followership, by showing how colleagues may grant leadership identities to their peers without necessarily granting them leadership authority, and without claiming follower identities for themselves.

Foroughi, Hamid (2020):

### Collective Memories as a Vehicle of Fantasy and Identification. Founding stories retold.

In: *Organization Studies* 41 (10), S. 1347–1367. DOI: 10.1177/0170840619844286.

#### Abstract:

This paper builds on recent calls for a polyphonic approach to study rhetorical uses of the past, to account for multiple and diverse voices that take part in the construction of collective memories. To this end, I explore (multiple) collective memories of a charity's founding story by tracing how this story was retold in the organization. My findings demonstrate that these recollected stories were localized and embellished within two specific mnemonic communities. I show that two different renditions of the founding story projected social fantasies shared by members of respective mnemonic communities, who used the telling of the story to reaffirm what they thought is the core purpose of the organization and their role. This finding is used to discuss how multiple collective memories sustain different identities in organizations. The research further discusses the mutual role of social fantasies in maintaining collective memories in organizations and vice versa.

Foroughi, Hamid; Al-Amoudi, Ismael (2020):

**Collective Forgetting in a Changing Organization. When memories become unusable and uprooted.**

In: *Organization Studies* 41 (4), S. 449–470. DOI: 10.1177/0170840619830130.

*Abstract:*

How is collective remembering inhibited by organizational changes which were not intended to manipulate it? And how does collective forgetting affect workers' power and sense of identity? We rely on an ethnographic study of a charitable organization that went through recent organizational changes to study two processes constitutive of collective forgetting. The first process consists in the past becoming unusable because once-useful memories lost their practical usefulness for participants' new activities. The second process consists in the past becoming uprooted because the social relations through which memories used to be shared had changed beyond recognition. Our findings provide insights into the organizational processes through which memories cease to circulate. They also help understand the complex relations between memory, power relations and participants' sense of identity.

Gammelgaard, Johanna; Haakonsson, Stine; Just, Sine N. (2020):

**Corporate Scramble for Africa? Towards a postcolonial framework for transglobal development governance.**

In: *Organization Studies* 41 (9), S. 1213–1233. DOI: 10.1177/0170840619835252.

*Abstract:*

Building on postcolonial critical organization and development studies, this paper explores the neo-colonial drive of a global development initiative. The New Alliance for Food Security and Nutrition (NA) was launched in 2012 and provides a governance framework for partnerships between donors, governments, and companies that applies principles and practices of market-led growth as means to the end of inclusive development. Through an in-depth, multilevel analysis that juxtaposes the NA's stipulated framework with the lived experiences of smallholder farmers in Malawi, one of ten African countries to participate in NA, the paper shows how local consequences are decoupled from global goals through governance gaps in both the horizontal and vertical dynamics of implementation. This decoupling of intention and consequence, we argue, happens at the national level of translating global principles into local practices. On the basis of this analysis, we suggest that vertical and horizontal governance must be integrated in one framework. Thus, we contribute to ongoing efforts to improve the theory and practice of the organization of development by introducing a framework of transglobal governance.

Ganzin, Max; Islam, Gazi; Suddab, Roy (2020):

**Spirituality and Entrepreneurship. The Role of Magical Thinking in Future-Oriented Sensemaking.**

In: *Organization Studies* 41 (1, SI), S. 77–102. DOI: 10.1177/0170840618819035.

*Abstract:*

Drawing from a qualitative empirical study of Canadian entrepreneurs, we seek to understand the nature of entrepreneurial thinking. More specifically, we analyse entrepreneurs' cognitive capacity to mitigate the risk inherent in an uncertain future and overcome low community expectations of entrepreneurial success. We introduce the notion of 'magical thinking', an emergent construct that refers to a cluster of beliefs that maintain the motivation and focus of entrepreneurs by transmuting agency from a rational-scientific context in which the entrepreneur imposes his or her will on the environment, to a spiritual context in which the entrepreneur perseveres by remaining true to trust in a wider cosmological belief system. We identify three key elements of magical thinking - finding one's path, obtaining the answers and being at peace.

Gerard, Nathan (2020):

**Reparation Compulsion. Theorizing the pitfalls of guilt-driven labor.**

In: *Organization Studies* 41 (5), S. 621–639. DOI: 10.1177/0170840618814572.

*Abstract:*

This paper critically examines the approach to studying and intervening in organizations that derives from the work of Melanie Klein. It proposes that Klein's emphasis on reparation, while clearly valuable for effecting change, can also induce undue guilt that stymies employee subjectivity and damages the organization. The term "reparation compulsion" is offered to capture this particular dynamic. Defined as the incessant drive to atone for guilt, reparation compulsion has both individual and collective correlates that together constitute a unique and hitherto unexplored organizational pathology. Two vignettes are used to demonstrate the limits of reparation in a work setting before turning to Menzies' classic case study of a nursing service, which is revisited in light of the pitfalls of guilt-driven labor. Together, these illustrations revise and expand upon Menzies' concept of social defense, placing reparation compulsion at the core of a newfound "depressive" social defense system that has direct repercussions for those working in the caring professions, and particularly those afflicted with "compassion fatigue." Specifically, the argument is made that compassion fatigue is not just an unfortunate side effect of caring, but constitutive of an organization in which repairing others requires a chronic disrepair of the self. The paper concludes with discussing the implications for the psychoanalytic study of organizations.

Glaser, Vern L.; Krikorian Atkinson, Mariam; Fiss, Peer C. (2020):

**Goal-Based Categorization. Dynamic Classification in the Display Advertising Industry.**

In: *Organization Studies* 41 (7), S. 921–943. DOI: 10.1177/0170840619883368.

*Abstract:*

Goal-based categories have recently emerged as an alternative perspective to the dominant account of prototypical market categories. However, key questions remain regarding the mechanisms that would enable stable market exchanges to form around ad hoc and idiosyncratic goal-based categories. Thus, we sought to answer the following question: How can goal-based categorization enable stable market transactions? Through an inductive study drawing on industry discourse, participant observation, and interview data from the online advertising industry, we describe the category infrastructure that enables buyers and sellers to engage in market exchanges using goal-based categorization. Three mechanisms are integral to goal-based categorization in market exchanges: dimensioning (establishing a possibility space in which valuation can take place through the identification, addition, and/or deletion of product features), scoping (selecting particular features in the possibility space), and bracketing (excluding certain actors from participating in market transactions). Moreover, the fundamental principle of valuation in goal-based categorization is goal-based attribution, which involves iteratively adding and deleting features to accommodate evolving goals. Our findings suggest novel directions for work on goal-based categorization as an important element of valuation in modern markets.

Gond, Jean-Pascal; Brès, Luc (2020):

**Designing the Tools of the Trade. How corporate social responsibility consultants and their tool-based practices created market shifts.**

In: *Organization Studies* 41 (5), S. 703–726. DOI: 10.1177/0170840619867360.

*Abstract:*

Combining insights from the sociology of markets and studies of consultants, this article examines the tool-based practices by which market actors enable the agencing of the supply and demand of the market in ways that shape the market's trajectory. Building on 31 interviews and a rich set of secondary data, we provide an analysis of the development of a market for consultancy products and services for corporate social responsibility (CSR) in the province of Quebec (Canada). Through analytical induction we identified six tool-based practices by which consultants contributed to the agencing of the market, and our results show how these practices collectively created market shifts. Our analysis offers new insights into the processes by which consultants' tool-based practices produce market shifts, embed environmental and social concerns within market mechanisms, and 'vascularize' markets.

Gross, Tamar; Zilber, Tammar B. (2020):

**Power Dynamics in Field-Level Events. A Narrative Approach.**

In: *Organization Studies* 41 (10), S. 1369–1390. DOI: 10.1177/0170840620907197.

*Abstract:*

Drawing upon an in-depth analysis of two bio-tech annual conferences in Israel, we explicate the exertion of power in convening. Event organization involves three narrative mechanisms: (1) telling stories which construct the field, and enacting them through different genres that channel participants to perform these stories in the unfolding of the event; (2) setting the stage and a space of possibilities for certain stories to be told in certain ways, and limiting others; and (3) grounding the stories in meta-narratives that confer plausibility on some of them over others. Our contribution lies in explicating how diverse narrative mechanisms allow organizers to exert various faces of power in organizing an event, how organizers use power to construct their own and others' resources, and how power is used not only through words, but also through space and embodiment. Taken together, self-serving constructions of the field are turned into a taken-for-granted reality, while constraining participants' ability to negotiate or refute it.

Hafermalz, Ella; Riemer, Kai (2020):

**Interpersonal Connectivity Work. Being there with and for geographically distant others.**

In: *Organization Studies* 41 (12, SI), S. 1627–1648. DOI: 10.1177/0170840620973664.

*Abstract:*

In this paper we ask how interpersonal connectivity can be achieved at a geographic distance. This is in contrast with extant literature that focuses on states of connectivity rather than the work needed to achieve it. We draw on phenomenological ideas of embodiment, presence and distance, in combination with empirical material from an extreme remote work context - telenursing in Australia. The nurses we interviewed triage patients entirely by telephone. We argue that even with low social and technical connectivity, interpersonal connectivity is achievable through skilful work with technology. We explore the work that goes into 'being there with and for distant others' by combining the phenomenological concepts of 'maximal grip' and 'intentional arc' with empirical examples. We propose that interpersonal connectivity is oriented empathetically towards both the other person and agentially towards the joint situation. We thereby develop a conceptual model of interpersonal connectivity work, which argues that distributed workers need to skilfully balance the dualities of freedom/control and nearness/farness to achieve interpersonal connectivity. Achieving and maintaining interpersonal connectivity is an important skill, particularly for leaders who operate in work contexts that are increasingly distributed, flexible and temporary.

Höllerer, Markus A.; Jancsary, Dennis; Barberio, Vitaliano; Meyer, Renate E. (2020):

**The Interlinking Theorization of Management Concepts. Cohesion and Semantic Equivalence in Management Knowledge.**

In: *Organization Studies* 41 (9), S. 1284–1310. DOI: 10.1177/0170840619856033.

*Abstract:*

This article develops the idea of 'interlinking theorization' in the context of management knowledge. We explain how management concepts are theorized through their direct co-occurrence with other management concepts, on the one hand, and their embeddedness in general business vocabulary, on the other. Conceptually, we extend a semantic network approach to vocabularies and suggest both cohesion between management concepts (i.e. a clustering in bundles) and their semantic equivalence (i.e. similar patterns of connectivity to general business vocabulary indicating specific types) as core dimensions of interlinking theorization. Empirically, we illustrate and further develop our conceptual model with data collected from magazines targeting management practitioners in the Austrian public sector. Our article contributes to existing literature by extending theorization to include different kinds of relationships between management concepts and focusing on direct and indirect relations across populations of management concepts as characteristics of the overall 'architecture' of management knowledge.

Irving, Gemma Louise; Ayoko, Oluremi B.; Ashkanasy, Neal M. (2020):

**Collaboration, Physical Proximity and Serendipitous Encounters. Avoiding collaboration in a collaborative building.**

In: *Organization Studies* 41 (8), S. 1123–1146. DOI: 10.1177/0170840619856913.

*Abstract:*

Despite the adoption of collaborative buildings and office spaces to improve collaboration, the expected benefits of spatial interventions often fail to materialize. In a study of an ostensibly ‘collaborative building’, we identified strategies that employees use to avoid collaborating (i.e. ‘focusing on existing collaborations’, ‘reinforcing group boundaries’, ‘enacting legacy policies’ and ‘minimizing social interactions’). These strategies combined to minimize serendipitous encounters, which led to the avoidance of new collaborations. Our findings address a theoretical tension in the literature as to whether proximity facilitates or inhibits collaboration. We also show that, while it is often difficult to facilitate serendipitous encounters in an ostensibly collaborative building, serendipity nonetheless plays a central role in the development of new collaborative partnerships.

Kalpokaite, Neringa; Radivojevic, Ivana (2020):

**Leading a Successful Transition to Democracy. A Qualitative Analysis of Political Leadership in Spain and Lithuania.**

In: *Organization Studies* 41 (6), S. 767–797. DOI: 10.1177/0170840618814555.

*Abstract:*

Any country embarking upon a political transition to democracy faces a complex period of change. While many factors influence successful democratization, political leadership remains a relatively unexplored phenomenon. This research presents a theoretical framework that is corroborated with data gathered from 65 semi-structured interviews with people involved in the transition processes of Spain and Lithuania along with the main political leaders themselves: King Juan Carlos I, Adolfo Suarez, Algirdas Brazauskas and Vytautas Landsbergis. The four leaders presented a similar political leadership style - based on their vision, decision-making, negotiation and power - which positively influenced the success of each transition to democracy.

Kenny, Kate; Fotaki, Marianna; Vandekerckhove, Wim (2020):

**Whistleblower Subjectivities. Organization and Passionate Attachment.**

In: *Organization Studies* 41 (3), S. 323–343. DOI: 10.1177/0170840618814558.

*Abstract:*

What is the nature of whistleblower subjectivity? In this article, we depart from current scholarly depictions of this figure as a fearless truth-teller who is fully independent of the organization. We argue for a new framing that sees the self-construction of the whistleblower as infused with passionate attachments to organizational and professional norms, even after one experiences severe reprisals. We base our claims on recently gathered empirical data and draw on Judith Butler to theorize how, contrary to existing understandings, passionate attachments to one’s organization and profession shape whistleblower subjectivity, rather than conscious risk-taking, or autonomous self-reinvention. Our second contribution is to highlight the importance of practical and material supports for this vital figure in society; until now the whistleblower has been idealized as an extraordinary hero rather than a real human in need of assistance. Overall, we propose a new theorization of the whistleblower involving passionate investments in the organization or profession that has cast one out.

Knights, David; Latham, Yvonne (2020):

**Disabled People and Digitalization. Disruptive documents in distributing digital devices.**

In: *Organization Studies* 41 (6), S. 855–872. DOI: 10.1177/0170840619869744.

*Abstract:*

This article examines the selection process in a pilot project aimed at distributing computers to disabled people to allow for digitalization. Particular attention is paid to the complexities generated by an allocation assessment form, designed to help these people improve their social interactions through electronic media. There is a paucity of discussions on forms in the organization studies literature but, when studied, an over-reliance on semantics such that their enactment in embodied sociomaterial performances is easily glossed over. Our problematic revolves around how forms and their surrounding sociomaterial performances constitute, but are also transformed by, subjects, objects and organizational relations. The contribution of this article is, therefore, to address the embodied enactments and sociomaterial practices that are embedded within these allocation processes. So, for example, assessors in the project deviated from a strict interpretation of the questions on the form and sometimes ignored clients' responses so as to prevent formal allocations of computers from being seen as illegitimate, and potentially disruptive to the organization's objectives of distributing digital devices. This enabled us to focus on the sociomaterial and embodied relations that are enacted within the selection process and how these place limits on, but also possibilities for, those allocating and those seeking to be allocated computers. The case study shows how distributing computers to disabled people is a complex sociomaterial process that is conditioned by the embodied performances and textual devices deployed. At the same time, the process was informed by humanistic and normalizing assumptions about sociability that are inscribed on the assessment form as criteria for allocating the computers. One implication, we found, was a tendency to reinforce the marginalization of disabled people.

Lai, Keyan; Morgan, Glenn; Morris, Jonathan (2020):

**'Eating Bitterness' in a Chinese Multinational. Identity Regulation in Context.**

In: *Organization Studies* 41 (5), S. 661–680. DOI: 10.1177/0170840619835271.

*Abstract:*

This paper responds to the call for more focus on how micro-level processes of identity regulation are shaped by, and constitutive of, wider societal institutions. We provide a case study of identity regulation in a Chinese multinational and show how senior managers in the firm draw on distinctive national and organizational contexts in China to construct, reinforce and reproduce a particular set of identities for employees. These identities draw upon discourses in the wider Chinese context which reflect the struggle of China to become a major industrial power after a century of humiliation by the West and the need for employees to provide this extra effort in the face of the existential challenges faced by the company and by the country. We demonstrate how managers create specific HR mechanisms that intertwine these discourses with the identities of employees and with the identity of the organization. This paper contributes to a better understanding of how micro-processes of identity work and mid-level processes of identity regulation and firm strategy are linked to macro-level institutional structures. Based on the framework provided, the paper discusses how far similar identity regulation mechanisms could be adopted elsewhere where similar macro-level discourses might be available, first in other Chinese MNCs, second, in other East Asian countries such as South Korea, third, more widely in emergent economies where MNCs are embedded in state-driven forms of capitalism, and finally in developed economies where populist nationalism is becoming increasingly influential. In this way, studies of identity regulation can bring organization studies into greater dialogue with other social sciences concerned with wider institutional change and continuity.

Le Theule, Marie-Astrid; Lambert, Caroline; Morales, Jeremy (2020):

**Governing Death. Organizing End-of-life Situations.**

In: *Organization Studies* 41 (4), S. 523–542. DOI: 10.1177/0170840618800107.

*Abstract:*

This paper examines the organization of death. Through an ethnographic study, we examine how a geriatrics department guides the end of life. Drawing on Agamben, we show that organizations that are dedicated to life, but regularly confronted with death, develop dispositifs (mechanisms, technologies, practices and relationships) to turn biopolitics (power over life) into thanatopolitics (a regime of death). We also show how the inherently political meaning of life disrupts such government of death. The inclusion of political life in a regime of death disrupts organizational practices that find themselves facing fundamental questions of what makes a life worth living, who can decide not to prolong life, and based on which criteria.

Lefsrud, Lianne; Graves, Heather; Phillips, Nelson (2020):

**“Giant Toxic Lakes You Can See from Space”. A Theory of Multimodal Messages and Emotion in Legitimacy Work.**

In: *Organization Studies* 41 (8), S. 1055–1078. DOI: 10.1177/0170840619835575.

**Abstract:**

Organizations need to appear legitimate to access resources. Thus, actors often carry out legitimacy work to shape others’ evaluation of something as “desirable, proper or appropriate.” Such research has tended to focus on the cognitive appeal of words. Recently, research has also emerged on the persuasiveness of images, especially for creating emotional appeals. We develop a process model to explain the role of multimodal messages-combining words and images-in legitimacy work. With this model, we aim to answer: Why do certain combinations of multimodal messages (words and images) more forcefully evoke emotion and more reliably capture recipients’ attention, motivate them to process those messages, and (re)evaluate the legitimacy of an organization, its activities, and/or its industry? We conclude by discussing theoretical extensions and connections to other methods such as institutional work and values work.

Leonardi, Paul M.; Treem, Jeffrey W. (2020):

**Behavioral Visibility. A new paradigm for organization studies in the age of digitization, digitalization, and datafication.**

In: *Organization Studies* 41 (12, SI), S. 1601–1625. DOI: 10.1177/0170840620970728.

**Abstract:**

The digitization, digitalization, and datafication of work and communication, coupled with social and technical infrastructures that enable connectivity, are making it increasingly easy for the behaviors of people, collectives, and technological devices to see and be seen. Such digital connectivity gives rise to the important phenomenon of behavioral visibility. We argue that studying the antecedents, processes, and consequences of behavioral visibility should be a central concern for scholars of organizing. We attempt to set the cornerstones for the study of behavioral visibility by considering the social and technological contexts that are enabling behavioral visibility, developing the concept of behavioral visibility by defining its various components, considering the conditions through which it is commonly produced, and outlining potential consequences of behavioral visibility in the form of three paradoxes. We conclude with some conjectures about the kinds of research questions, empirical foci, and methodological strategies that scholars will need to embrace in order to understand how behavioral visibility shapes and is shaped by the process of organizing as we catapult, swiftly, into an era where artificial intelligence, learning algorithms, and social tools are changing the way people work.

Molli, Federica de; Mengis, Jeanne; van Marrewijk, Alfons (2020):

**The Aestheticization of Hybrid Space. The Atmosphere of the Locarno Film Festival.**

In: *Organization Studies* 41 (11), S. 1491–1512. DOI: 10.1177/0170840619867348.

**Abstract:**

The aestheticization of organizational space is a growing phenomenon with organizations carefully designing the aesthetic engagement in space to invoke specific values and behavior. Simultaneously, however, the traditional workspace is disappearing as work is performed increasingly in multiply-located, hybrid spaces combining corporate, domestic and public spaces. This paper seeks to understand the aestheticization of hybrid spaces by theoretically drawing on the notion of atmosphere as proposed by the philosopher Gernot Boehme. By ethnographically exploring how an urban film festival creates its unique atmosphere, we identify three intertwined aesthetic practices that underpin the aestheticization of hybrid space: the interrelation of different aesthetic codes and expressions, the processual guidance of the aesthetic experience, and the provision of a centre of experience. We discuss how ambiguities, multiplicities and diversities may become a resource when aestheticizing hybrid space, reminding us to be critical even when atmospheres emerge beyond the careful aesthetic design of space.

Mountford, Nicola; Geiger, Susi (2020):

**Duos and Duels in Field Evolution. How Governments and Interorganizational Networks Relate.**

In: *Organization Studies* 41 (4), S. 499–522. DOI: 10.1177/0170840618789210.

*Abstract:*

We live in an era where models of governing are changing rapidly under multifaceted evolutionary pressures and where, at the same time, organizational fields are becoming increasingly networked. With this paper, we add to the field dynamics literature, focusing on the space where these evolutionary pressures coincide - the interactions of Governments and interorganizational networks. We examine the roles that interorganizational networks play in relation to Government actors under particular long- and short-term institutional and governance conditions. We articulate four roles that networks may play in relation to Government: advocate, technology, judge and ruler. We argue that long-term institutional logics, combined with short-term Government action in response to a particular field evolution, may predict the role that the interorganizational network will assume in relation to Government in that particular field scenario. We discuss flows through the typology as conditions change and we conclude by presenting an agenda for future research in the field dynamics and interorganizational networks research domains that leverages our proposed network role typology.

Mueller, Monika (2020):

**Escaping (into) the night horizontal ellipsis. Organizations and work at night.**

In: *Organization Studies* 41 (8), S. 1101–1122. DOI: 10.1177/0170840619830138.

*Abstract:*

Despite the increasing normalization of nightwork, organizational researchers typically study organizations and work as daytime phenomena. A nocturnal lens, nevertheless, can provide a different picture of what is going on in organizations. In this paper, I introduce nightwork into organization studies with a qualitative case study of two research sites (a factory and a hospital laboratory), and analyse employee experiences at night and responses to differences between night- and dayshifts. This study contributes to literature on agency and escape, highlighting that night enables and encourages escape in ways that differ from those during the day. Moreover, the study shows that while employees can ‘escape into the night’ to avoid daytime rules and pressures, many also need to ‘escape from the night’ and the physical and mental exhaustion nightwork entails. The paper concludes by pointing to further research on night in organizations, nightwork and escape.

Nash, Louise (2020):

**Performing Place. A Rhythmanalysis of the City of London.**

In: *Organization Studies* 41 (3), S. 301–321. DOI: 10.1177/0170840618789161.

*Abstract:*

Through its focus on the City of London as a particular work sector and setting, this paper emphasizes the symbolic and material significance of place to understanding the lived experiences of power relations within organizational life. The socio-cultural and material aspects of the City are explored through an analysis of the rhythms of place, as well through interview data. Using a methodological approach based on Lefebvre’s Rhythmanalysis in order to develop an embodied, immersive sense of how the City is experienced as a workplace, the paper makes a methodological, empirical and theoretical contribution to an understanding of the way in which rhythms shape how place is performed. Using rhythmanalysis as a method, the paper shows the relationship between rhythms and the performances of place, foregrounding a subjective, embodied and experiential way of researching the places and spaces of organizing.

Nurmi, Niina; Hinds, Pamela J. (2020):

**Work Design for Global Professionals. Connectivity demands, connectivity behaviors, and their effects on psychological and behavioral outcomes.**

In: *Organization Studies* 41 (12, SI), S. 1697–1724. DOI: 10.1177/0170840620937885.



*Abstract:*

We investigated connectivity demands as a work design characteristic and how its different enactments affect interpersonal relationships and outcomes in global work. Work design theory has seen a resurgence over the last decade as both work and the expectations of workers have evolved. Emerging technologies, in particular, have fueled higher levels of autonomy, greater interdependence, and more global collaboration. These trends, in turn, have sparked increasing recognition among scholars of the social characteristics of work design. Building on this burgeoning research, we identify a modern-day social characteristic of work, global connectivity demands, defined as the extent to which workers collaborate with distant colleagues, especially those that span significant time zone differences, thus requiring high levels of interaction across national boundaries. We examine how these demands are enacted by global professionals and what effects they have on outcomes, including relationships. We conducted initial interviews with 13 human resource directors, which confirmed that global professionals face strong pressure to connect and are being expected to communicate frequently with their distant colleagues, work after hours, and make site visits. Our study of 413 global professionals in an engineering firm then found that not all workers conformed to these connectivity demands, and that their choices shaped their interpersonal relationships with distant colleagues. We advance research on connectivity by interweaving it with work design theory to create a more multifaceted view of the role and effects of global connectivity demands. Our findings demonstrate that different enactments of connectivity may have different effects on interpersonal relationships and work outcomes.

Nyberg, Daniel; Wright, Christopher; Kirk, Jacqueline (2020):

### Fracking the Future. The Temporal Portability of Frames in Political Contests.

In: *Organization Studies* 41 (2), S. 175–196. DOI: 10.1177/0170840618814568.

*Abstract:*

Despite scientific consensus on the need to rapidly decarbonize economic systems to limit global warming, the exploitation of fossil fuels continues unabated. This begs the question, why do we continue down this path? We argue that one reason is the way in which fossil fuel expansion is temporally framed. In this article, we examine the disputed development of hydraulic fracturing of shale gas ('fracking') in the United Kingdom. Through analysis of a series of public inquiries conducted by the UK Government we show how industry, government and NGOs have engaged in a framing contest in debating the future of fracking. The findings show how the framing of fossil fuel development was solidified over time through processes of certainty, simplicity and familiarity. We contribute by: (a) showing how actors mobilize temporality in constructing persuasive and actionable frames; (b) developing a theory of how frames gain temporal portability - a chronology between a dominant past and a recognized future; and (c) providing an alternative theory of short-termism in explaining the path leading us to a dangerous climate changed future.

Palo, Teea; Mason, Katy; Roscoe, Philip (2020):

### Performing a Myth to Make a Market. The construction of the 'magical world' of Santa.

In: *Organization Studies* 41 (1, SI), S. 53–75. DOI: 10.1177/0170840618789192.

*Abstract:*

If you believe in Santa, do not read this paper. Through an in-depth, qualitative, empirical study, we follow the Santa myth to a remote northern location in Lapland, Finland where, for one month a year, multiple actors come together to create a tourist market offering: the chance to visit Santa in his 'magical world'. We explore how the myth is transformed into reality through performative, organisational speech acts, whereby felicitous conditions for the performance of visits to Santa are embedded in a complex socio-material network. We develop the performative turn (Gond et al., 2016) in organisational studies by introducing a new category of speech act, 'translocation', a compendium of imagining, discussing, proposing, negotiating and contracting that transforms the myth into a model of an imaginary-real world. Through translocutionary acts, actors calculate, organise the socio-material networks of the market, and manage the considerable uncertainty inherent in its operation. Details of the myth become market facts, while commercial constructs fade into the imaginary. The result, when felicitous conditions are achieved, is a 'Merry Christmas' of magical, performative power.

Pedeliento, Giuseppe; Andreini, Daniela; Dalli, Daniele (2020):

**From Mother's Ruin to Ginaissance. Emergence, settlement and resettlement of the gin category.**

In: *Organization Studies* 41 (7), S. 969–992. DOI: 10.1177/0170840619883366.

*Abstract:*

This article provides a historically grounded explanation of category emergence and change by using the gin category as an example. Formerly a standardized spirit produced by a narrow group of large England-based producers, gin has become a premium craft spirit made by thousands of big and small producers in every corner of the world – a categorical shift that commentators have dubbed the 'ginaissance'. We approach product categories as socially constructed entities and make informed use of history to explain the successive categorical dynamics. Strategic action field theory is applied to explain how internal and external category actors interact to create and change product meanings and affect categorical configurations. Our results show how the intricate, complex and historically embedded processes that the product category underwent first triggered stigmatization and then put conditions in place that led to concentration and made the current ginaissance possible. Findings drawn from this study of gin contribute to research on product categories by revealing some peculiar dynamics of concentration and partitioning, status recategorization and categorical stigma, which are summarized in an empirically grounded process model of category emergence and change.

Picard, Hélène; Islam, Gazi (2020):

**'Free to Do What I Want'? Exploring the ambivalent effects of liberating leadership.**

In: *Organization Studies* 41 (3), S. 393–414. DOI: 10.1177/0170840618814554.

*Abstract:*

This study examines the phenomenon of 'liberating leadership', an emerging trend promising self-mastery and collective unity, resonating with the literature on post-heroic leadership. We evaluate the claims of liberating leadership from a psychodynamic perspective, using a Lacanian approach. We examine how post-heroic forms of leadership reconfigure symbolic and imaginary aspects of follower identification, with ambivalent effects. Drawing empirically on the case of a Belgian banking department, we trace how a 'liberating' leader was able to garner intense psychological attachment among followers, accompanied by the 'dark sides' of personal exhaustion and breakdown, normative pressure to be overly happy, and the scapegoating of contrarian managers representing symbolic prohibition.

Piekkari, Rebecca; Tietze, Susanne; Koskinen, Kaisa (2020):

**Metaphorical and Interlingual Translation in Moving Organizational Practices Across Languages.**

In: *Organization Studies* 41 (9), S. 1311–1332. DOI: 10.1177/0170840619885415.

*Abstract:*

Organizational scholars refer to translation as a metaphor in order to describe the transformation and movement of organizational practices across institutional contexts. However, they have paid relatively little attention to the challenges of moving organizational practices across language boundaries. In this conceptual paper, we theorize that when organizational practices move across contexts that differ not only in terms of institutions and cultures but also in terms of languages, translation becomes more than a metaphor; it turns into reverbalization of meaning in another language. We argue that the meeting of languages opens up a whole new arena for translator agency to unfold. Interlingual and metaphorical translation are two distinct but interrelated forms of translation that are mutually constitutive. We identify possible constellations between interlingual and metaphorical translation and illustrate agentic translation with published case examples. We also propose that interlingual translation is a key resource in the discursive constitution of multilingual organizations. This paper contributes to the stream of research in organization studies that has made translation a core aspect of its inquiry.

Pope, Shawn; Lim, Alwyn (2020):

**The Governance Divide in Global Corporate Responsibility. The Global Structuration of Reporting and Certification Frameworks, 1998-2017.**

In: *Organization Studies* 41 (6), S. 821–854. DOI: 10.1177/0170840619830131.

*Abstract:*

In recent decades, as worldwide attention to corporate responsibility increased, the global corporate responsibility (GCR) movement did not converge on a singular governance model nor hybridize into myriad country-specific models. The movement, rather, bifurcated into onerous certification frameworks and more lax reporting frameworks. We examine this 'governance divide' in the GCR movement by investigating the cross-national diffusion of seven core GCR frameworks. We adopt a glocalization perspective that conceptualizes a vertical nesting of local and global contexts. Our cross-national quantitative analyses suggest that, while linkages to global culture have encouraged business participation in all GCR frameworks, power dependencies related to international trade and domestic factors related to effectiveness of local governance institutions have contributed to divergent diffusion patterns across reporting and certification frameworks. We discuss these findings in relation to several organizational perspectives and note their implications for further research on corporate responsibility.

Popp, Andrew; Fellman, Susanna (2020):

**Power, Archives and the Making of Rhetorical Organizational Histories. A stakeholder perspective.**

In: *Organization Studies* 41 (11), S. 1531–1549. DOI: 10.1177/0170840619879206.

*Abstract:*

We contribute to the rhetorical history concept by focusing on the corporate archive, a key source for constructing rhetorical histories. We propose a stakeholder perspective as a way to model the constellation of power and interests around the corporate archive, identifying four key stakeholder groups: owners; archivists; historians; and audiences. Recent work has problematized the rhetorical history concept, arguing that rhetorical histories are more unstable and harder to control by managers than suggested by earlier work. This paper contributes by exploring the corporate archive as a source of contestation shaped by the varying degrees of power and interest held by key stakeholders. We propose a simple stakeholder perspective on the corporate archive before applying it to four case studies. Application allows us to refine this approach by revealing the interplay of forces around the corporate archive in relation to the construction of rhetorical history.

Ratner, Helene (2020):

**Topologies of Organization. Space in Continuous Deformation.**

In: *Organization Studies* 41 (11), S. 1513–1530. DOI: 10.1177/0170840619874464.

*Abstract:*

This paper offers to extend existing discussions about the socio-material production of organizational space through the concept of topology. It does so by: (1) connecting the concept of topology to existing approaches to spatial organization that emphasize its socio-material and open-ended emergence; (2) theorizing organizational space as being in constant deformation across different topological shapes; and (3) exploring this in an empirical example that juxtaposes a management meeting with its interruption. The empirical material is collected through the method of shadowing managers at a Danish school. Theoretically, the paper argues that the shaping of space is contingent upon dis/continuities between (non)human agencies. The topological deformation of space testifies to the continuous but under-acknowledged work provided by (non)human agencies to both achieve and challenge the stability of organizational space. It further situates the boundary between inside and outside as a transient condition. This renders spatial matters such as scale and size situational achievements. Topology thus implies that we cannot in advance scale organization into micro and macro spatialities, and further, foregrounds the inherent dis/organization of space.

Sage, Daniel; Vitry, Chloe; Dainty, Andrew (2020):

**Exploring the Organizational Proliferation of New Technologies. An Affective Actor-Network Theory.**

In: *Organization Studies* 41 (3), S. 345–363. DOI: 10.1177/0170840618815524.

*Abstract:*

In this paper we explore the role of affective encounters between human and non-human bodies in the proliferation of new technologies within and across work organizations. Our exploration challenges not only the long-standing rationalism within studies of technological innovation but the anthropocentrism of burgeoning studies of technology, innovation and affect. Responding to these proclivities, we propose and elaborate an affective Actor-Network Theory (ANT) as an alternative analytical approach by cross-fertilizing ANT concepts with Deleuze's reading of the affective philosophy of Spinoza. Our approach is elaborated further with the technological innovation of zero-carbon homes in the United Kingdom. Affective ANT is proposed to explain the profound role of affects in the circulation of technologies and of technologies in the circulation of affects. This theory contributes by challenging: studies of affect, innovation and technology to examine the significance of relational human affects in the proliferation of new technologies; organizational studies to consider the interplay of human and technical affects; and Deleuzo-Spinozian organizational studies to conceptualize how affects are organized to serve managerial interests and agendas, such as technological innovation.

Saka-Helmhout, Ayse; Chappin, Maryse; Vermeulen, Patrick (2020):

**Multiple Paths to Firm Innovation in Sub-Saharan Africa. How informal institutions matter.**

In: *Organization Studies* 41 (11), S. 1551–1575. DOI: 10.1177/0170840619882971.

*Abstract:*

Although innovation studies in developing countries acknowledge the importance of resources for firm innovation, their emphasis tends to be on bottlenecks created by resource constraints and institutional weaknesses. We address this shortcoming by exploring the relationship among firm resources and formal and informal institutions leading to innovation in these settings. By adopting a crisp-set qualitative comparative analysis of firms in sub-Saharan Africa, we confirm the thesis that informal institutions substitute underdeveloped formal institutions and in combination with firm-level resources afford firm innovation. More importantly, we find that informal institutions also complement more developed formal institutions in the presence or absence of high levels of firm resources or accommodate them in the presence of high levels of firm resources to support firm innovation. Our findings point to multiple paths that firms can take to be innovative that best fit their existing institutional context.

Sapir, Adi (2020):

**Mythologizing the Story of a Scientific Invention. Constructing the legitimacy of research commercialization.**

In: *Organization Studies* 41 (6), S. 799–820. DOI: 10.1177/0170840618814575.

*Abstract:*

This paper explores the processes through which an organizational story acquires mythological status within an organizational field. To this end, I analyse a story of a successful case of academic technology transfer that gained mythological status in the field of higher education in Israel: the commercialization of the innovative pharmaceutical drug Copaxone. I identify three concurrent processes of mythologizing work: organizational storytelling, media diffusion and reconstruction, and field-level retelling and countering. I argue that myth-making is a collective work, in which an organizational story is shaped not only through the strategic rhetorical work of managers but also through interpretations and modifications by the media as well as other actors in the field. The myth of Copaxone, as it is currently told in the field of higher education in Israel, is a complex assemblage of the organizational story and various counter-narratives. I further suggest that this myth not only serves to naturalize and reinforce academic patenting, but also constitutes a discursive space for reflections about the ambiguities inherent in academic commercialization.

Schildt, Henri; Mantere, Saku; Cornelissen, Joep (2020):

### Power in Sensemaking Processes.

In: *Organization Studies* 41 (2), S. 241–265. DOI: 10.1177/0170840619847718.

#### Abstract:

This article examines the effects of power on sensemaking processes, bridging two major, yet traditionally separate, literatures in organization studies. Dividing power into its systemic and episodic forms, we elaborate how power shapes not only the content of sensemaking, but also the form of sensemaking processes. We explicate the distinct ways in which power works in four archetypal sensemaking processes: automatic (preconscious and committed), improvisational (preconscious and provisional), algorithmic (conscious and committed) and reflective (conscious and provisional). These ideal-type processes help us theorize how influences related to systemic and episodic power induce more or less conscious and provisional forms of sensemaking. This refined understanding of sensemaking processes enables further explication of episodic power into distinctive kinds of sensegiving and sensebreaking activities.

Schwarzkopf, Stefan (2020):

### Sacred Excess. Organizational Ignorance in an Age of Toxic Data.

In: *Organization Studies* 41 (2), S. 197–217. DOI: 10.1177/0170840618815527.

#### Abstract:

Actors in data-intensive industries at times deliberately induce and reproduce organizational ignorance by engaging in over-production of data. This observation leads the paper to make two claims. First, members of these industries fetishize data excess not in order to reduce, but in order to reproduce and stabilize organizational ignorance. Second, in this process of fetishization, organizational ignorance gives rise to forms of collective effervescence similar to that found in totemistic religions. This effervescence allows organizational actors to draw defining lines around that which is marked as awe-inspiring, dangerous and off-limits, namely the sacred. In reviewing organizational ignorance from the perspective of the sacred, this paper proposes that, paradoxically, contemporary forms of data creation allow companies and industries to organize themselves around ignorance as opposed to the promise of knowledge and insight. The paper uses this theoretical proposal in order to outline the contours of an alternative ontology of organizational ignorance, one that understands this phenomenon in terms of excessive presence of data and information.

Siltaoja, Marjo; Lahdesmaki, Merja; Granqvist, Nina; Kurki, Sami; Puska, Petteri; Luomala, Harri (2020):

### The Dynamics of (De)Stigmatization. Boundary construction in the nascent category of organic farming.

In: *Organization Studies* 41 (7, SI), S. 993–1018. DOI: 10.1177/0170840620905167.

#### Abstract:

This study finds that it is possible for organizations in emerging categories to resist stigmatization through discursive reconstruction of the central and distinctive characteristics of the category in question. We examined the emerging market of organic farming in Finland and discovered how resistance to stigmatization was both an internal and an external power struggle in the organic farming community. Over time, the label of organic farming was manipulated and the practice of farming was associated with more conventional and familiar contexts, while the stigma was diverted at the same time to biodynamic farming. We develop a process model for removal of stigma from a nascent category through stigma diversion. We find that stigma diversion forces the core community to (re)define themselves in relation to the excluded community and the mainstream. We also discuss how notoriety can be an individuating phenomenon that helps categorical members conduct identity work and contributes to stigma removal.

Skoglund, Annika; Bohm, Steffen (2020):

### Prefigurative Partaking. Employees' Environmental Activism in an Energy Utility.

In: *Organization Studies* 41 (9), S. 1257–1283. DOI: 10.1177/0170840619847716.

*Abstract:*

The separation between an 'inside' and 'outside' of organizational politics has become untenable in a rapidly changing political landscape, where people engage in environmental activism in many different domains. To understand contemporary environmental activism, we situate ourselves empirically within an energy utility, Ordalia [pseudonym], a large corporation active across Europe and heavily criticized by external activists for its carbon emitting operations. By merging Ranciere's method of equality and notion of 'partaking' with literature on prefiguration in social movements, we analyse everyday green actions pursued by Ordalia's employees, which we conceptualize as 'prefigurative partaking'. By focusing on six characterizing themes of prefigurative partaking - aspirational, individual, professional, critical, loyal and communal - we have found that employee activism is incremental, horizontal and boundaryless. We discuss these findings in relation to recent calls for more fruitful exchanges between social movement theory and organization studies, arguing that Ranciere's conceptualization of politics can help us study actions that span civil society and business. This complements and expands our understanding of environmental activism as a dispersed set of actions that can take place anywhere, and hence also at work.

Slavich, Barbara; Svejenova, Silviya; Opazo, M. Pilar; Patriotta, Gerardo (2020):

### Politics of Meaning in Categorizing Innovation. How Chefs Advanced Molecular Gastronomy by Resisting the Label.

In: *Organization Studies* 41 (2), S. 267–290. DOI: 10.1177/0170840619835268.

*Abstract:*

This study examines innovators' efforts to conceptualize and communicate their novel work through categorization. Specifically, we view category formation as a controversial process of meaning making, which we theorize through the concept of "politics of meaning" and operationalize through a social semiotics approach. By analyzing the labeling controversies underlying a new culinary style publicized as "molecular gastronomy", we find that innovators' efforts at categorization unfold along four consecutive stages: experimenting with a new style, communicating the new style, contesting the dominant label, and legitimating the category meaning. Our study suggests that a new category's dominant label can substantially deviate from the innovators' intended denotations, yet nonetheless bring that category forward by triggering public negotiations around its meaning, which lead to categorical deepening and legitimation. By putting forward a "politics of meaning" view on categorizing innovation, this work advances our understanding of the connection between labeling and category formation in the context of innovation.

Storgaard, Marianne; Tienari, Janne; Piekkari, Rebecca; Michailova, Snezhina (2020):

### Holding On While Letting Go. Neocolonialism as Organizational Identity Work in a Multinational Corporation.

In: *Organization Studies* 41 (11), S. 1469–1489. DOI: 10.1177/0170840620902977.

*Abstract:*

This paper develops the idea of neocolonialism as organizational identity work in multinational corporations (MNCs). We argue that neocolonialism - the ethos and practice of colonialism and western superiority in contemporary society - is a means through which identity is worked on at MNC headquarters (HQ). In contrast to extant neocolonial studies of western MNCs, which focus on the subsidiaries (the colonized) and how their identities are shaped by the HQ (the colonizer), we analyse how the HQ is shaped by the subsidiaries. We elucidate two versions of neocolonialism at play: a traditional neocolonial ethos, which prevails at HQ, and a more contemporary version, which is silenced. Our findings show that nurturing a shared and enduring organizational identity across all units of an MNC is a quixotic task. Nevertheless, HQ managers in western MNCs keep attempting to do this, suggesting that neocolonial ethos and practice continue to be relevant in these organizations.

Vaast, Emmanuelle (2020):

**A Seat at the Table and a Room of Their Own. Interconnected processes of social media use at the intersection of gender and occupation.**

In: *Organization Studies* 41 (12), S. 1673–1695. DOI: 10.1177/0170840619894923.

*Abstract:*

Social media have enabled people to connect with others in unprecedented ways. Existing scholarship has so far provided conflicting insights regarding what people do with these connections. Here I propose that to make sense of what people accomplish with social media-enabled connections, one needs to examine more closely their foundations. Specifically, one key way to understand social media-enabled connections is to consider how social media enable people to come together on the basis of joint social identities. This study focuses on how people use social media in ways that connect them to one another at the intersection of gender and occupational identities, i.e. two social identities that have been central to many organization studies and are critical in today's societies. The study relies upon the qualitative investigation of how women and gender non-binaries data scientists used social media. The study reveals that, at the intersection of gender and occupation, people use social media to engage in three interconnected processes of promoting inclusion, co-producing equalizing resources, and fostering exclusive enclaves. It brings light to new ambivalence reflected in people's uses of social media as they seek, simultaneously, to reshape gender dynamics in their occupation and to protect their reputation as competent workers. It unpacks why and how, with social media, the professional and the political have become intertwined.

Valikangas, Liisa; Carlsen, Arne (2020):

**Spitting in the Salad. Minor Rebellion as Institutional Agency.**

In: *Organization Studies* 41 (4), S. 543–561. DOI: 10.1177/0170840619831054.

*Abstract:*

How can a desire for rebellion drive institutional agency, and how is such desire produced? In this paper, we develop a theory of minor rebellion as a form of institutional agency. Drawing from the work of Deleuze and Guattari as well as from notions of social inquiry and the sociology of punk, we qualify and illustrate minor rebellion as a lived-in field of desire and engagement that involves deterritorializing of practice in the institutional field. Three sets of processes are involved: (i) minor world-making, through establishing the aesthetics and relations of an outsider social network within a major field, including the enactment of cultural frames of revolt and radicalism; (ii) minor creating, through constructing and experimenting with terms, concepts, and technology that somehow challenge hegemony from within; and (iii) minor inquiring, through problematizing social purposes and the related experiential surfacing of the desirable new. Minor rebellion suggests a new solution to the paradox of embedded agency by describing institutional agency as shuttling between political contest and open-ended social inquiry, involving anti-sentiments, but also being for something. The paper also contributes to recasting institutional agency as a process resulting from emergent collective action rather than preceding it. To illustrate our theorizing, we describe the emergence of Robin Hood Asset Management, a Finnish activist hedge fund. At the end of the paper we discuss how minor rebellion raises new questions about the multiplicities and eventness of desiring in institutional agency.

van Grinsven, Marlieke; Sturdy, Andrew; Heusinkveld, Stefan (2020):

**Identities in Translation. Management Concepts as Means and Outcomes of Identity Work.**

In: *Organization Studies* 41 (6), S. 873–897. DOI: 10.1177/0170840619866490.

*Abstract:*

This article seeks to develop our understanding of how management concepts are translated by examining the role of identity work in this process. Rather than a sole focus on changes in a management concept, we examine tensions and congruences between agents' orientations towards that concept and how they see the broader organizational engagement with it. Through an examination of qualitative data from a study of those specifically tasked with the implementation of Lean in hospital contexts, we identify their narratives of self in relation to the concept. We show how, through four different types of translation-as-identity-work – externalizing, professionalizing, rationalizing and proselytizing – both the concept and the agent are constructed simultaneously. In recognizing interconnectedness, diversity and dynamism in these

actors' involvement, we seek to integrate, contextualize and broaden existing perspectives on agency in translation research.

van Hulst, Merlijn; Ybema, Sierk (2020):

### From What to Where. A setting-sensitive approach to organizational storytelling.

In: *Organization Studies* 41 (3), S. 365–391. DOI: 10.1177/0170840618815523.

#### Abstract:

Extant literature on organizational storytelling assumes storytelling to be context-bound, but does not empirically detail or theorize how storytelling might differ across organizational settings. In the context of members' everyday work lives, organizational storytelling research tends to focus on the content of stories and not on the actual telling. By addressing this omission, this paper makes three contributions. First, we offer a generic framework for analysing storytelling in situ by zooming in on the situated occurrence of storytelling through a focus on four questions: (1) What makes an event tellable? (2) What triggers its telling? (3) What form does the storytelling take? (4) What work does it do? By using ethnographic data gathered on storytelling in everyday police work, we empirically substantiate this framework. Our second contribution, then, is to show how a setting-specific approach to studying storytelling may help to flesh out a fuller, more grounded account of story life in organizations. Finally, we propose a typology of different forms of setting-specific discourse - meeting-room talk, workstation talk, canteen talk and closed-door talk - which allows researchers to further sensitize organizational research to the situated nature of organizational discourse.

van Wijk, Jakomijn; van Wijk, Jeroen; Drost, Sarah; Stam, Wouter (2020):

### Challenges in Building Robust Interventions in Contexts of Poverty. Insights from an NGO-driven multi-stakeholder network in Ethiopia.

In: *Organization Studies* 41 (10), S. 1391–1415. DOI: 10.1177/0170840619878468.

#### Abstract:

We examine the demise of a multi-stakeholder network that was launched to promote an inclusive dairy market in Ethiopia to better understand why nongovernmental organizations (NGOs) may develop interventions in contexts of poverty that fail to endure after they exit. We identify organizational reflexivity – the capacity to recognize and understand the recursive interplay between an intervention and the local environment – as a key explanatory mechanism for this intervention outcome. Limited reflexivity not only prevented the NGO we studied from properly aligning the intervention with the context (design failures), but also prevented the organization from adjusting its intervention when negative feedback emerged (orchestration failures), which eventually evolved into the demise of the network (maintenance failure). While our study confirms the theoretical premise that NGOs need to contextualize their interventions, we expand current knowledge by highlighting the role of organizational reflexivity in this process. Moreover, by showing how reflexivity deficits can trigger a cascade of failure, especially when intervening in voids where incumbent firms have interests in maintaining the void, our study calls attention to the politicized nature of institutional voids.

Wenzel, Matthias; Kraemer, Hannes; Koch, Jochen; Reckwitz, Andreas (2020):

### Future and Organization Studies. On the rediscovery of a problematic temporal category in organizations.

In: *Organization Studies* 41 (10), S. 1441–1455. DOI: 10.1177/0170840620912977.

#### Abstract:

Even though organizational activities have always been future-oriented, actors' fascination with the future is not a universal phenomenon of organizational life. Human experience of the future is a rather young product of modernity, in which actors discovered the indeterminacy of the future, as well as their abilities to 'make' and, in part, even control and de-problematize it through ever-more sophisticated planning practices. In this essay, we argue that actors have recently 'rediscovered' the future as a problematic, open-ended category in organizational life, one that they cannot delineate through planning practices alone. This, we suggest, has been produced through a pluralization of what we refer to as



‘future-making practices’, a set of practices through which actors produce and enact the future. Based on illustrations of the experienced problematic open-endedness of the future in prevalent discourses such as climate change, digital transformation and post-truth politics, we invite scholars to explore future-making practices as an important but under-appreciated organizational phenomenon.

Wilhelm, Hendrik; Bullinger, Bernadette; Chromik, Jessica (2020):

**White Coats at the Coalface. The Standardizing Work of Professionals at the Frontline.**

In: *Organization Studies* 41 (8), S. 1169–1200. DOI: 10.1177/0170840619862833.

*Abstract:*

This study advances theory on professionals by introducing a novel ‘coalface perspective’ to study frontline professionals’ standardizing work. Our multimethod quantitative and qualitative approach explores when, why and how medical professionals in German university hospitals actively maintain care pathway enactment – a technique to standardize day-to-day medical work – in their everyday patient treatment. Professionals’ actively standardizing their work is an understudied yet highly relevant phenomenon that the established ‘autonomy perspective’ – which covers how professionals resist standardization – falls short of explaining. Introducing a coalface perspective overcomes this shortcoming by uncovering novel links between professionals’ day-to-day problem-driven motivations for standardizing work, the characteristics of everyday situations of frontline professional work and practices of standardizing work at the frontline. This study has implications for research on frontline professionals and coalface-perspective research in general.

## Reviews

Baba, Sofiane (2020):

Steven Pinker: *Enlightenment Now: The Case for Reason, Science, Humanism, and Progress*. London, Penguin: 2018. 576 pp.

[Review]. In: *Organization Studies* 41 (10), S. 1457–1460. DOI: 10.1177/0170840619884038.

Boxenbaum, Eva (2020):

Alaric Bourgoïn: *Les Équilibristes. Une ethnographie du conseil en management (Tightrope walkers: An ethnography of management consulting)*. Paris: Presses des Mines, 2015. 308 pages.

[Review]. In: *Organization Studies* 41 (8), S. 1201–1204. DOI: 10.1177/0170840619879301.

Chamberlain, James (2020):

Riccardo Baldissone: *Farewell to Freedom: A Western Genealogy of Liberty*. London: University of Westminster Press, 2018.

[Review]. In: *Organization Studies* 41 (5), S. 729–732. DOI: 10.1177/0170840619862226.

Deckop, John R. (2020):

Guy Redden: Questioning Performance Measurement: Metrics, Organizations, and Power. Thousand Oaks, CA: SAGE Publications, 2019.

[Review]. In: *Organization Studies* 41 (4), S. 590–593. DOI: 10.1177/0170840619867897.

Dorion, Léa (2020):

Sexuality, truth and the (male) subject: a review of Foucault's (2018) *Aveux de la Chair* (History of Sexuality, vol. IV).

[Review]. In: *Organization Studies* 41 (9), S. 1339–1341. DOI: 10.1177/0170840619882186.

Drori, Gili S. (2020):

Roland Paulsen: Empty Labor: Idleness and Workplace Resistance. Cambridge: Cambridge University Press, 2014. xv + 217 pages.

[Review]. In: *Organization Studies* 41 (7), S. 1043–1046. DOI: 10.1177/0170840619877100.

Ellinger, Eleunthia Wong (2020):

Shoshana Zuboff: The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power. New York: Public Affairs, 2019. 704 pp.

[Review]. In: *Organization Studies* 41 (11), S. 1577–1580. DOI: 10.1177/0170840619884034.

Fabbri, Julie (2020):

Isabelle Berrebi-Hoffmann, Marie-Christine Bureau & Michel Lallement Makers: Enquête sur les laboratoires du changement social [Make, Maker, Makerspace] Paris: Seuil, 2018.

[Review]. In: *Organization Studies* 41 (2), S. 291–294. DOI: 10.1177/0170840619859251.

Fernandez, Pablo D. (2020):

Revisiting Hannah Arendt: The Human Condition, Chicago: University of Chicago Press, 1958, 370 pages.

[Review]. In: *Organization Studies* 41 (11), S. 1580–1584. DOI: 10.1177/0170840619884035.

Flyverbom, Mikkel (2020):

Jana Costas & Chris Grey: Secrecy at Work: The Hidden Architecture of Organizational Life. Stanford, CA: Stanford University Press, 2016. 206 pp.

[Review]. In: *Organization Studies* 41 (10), S. 1460–1463. DOI: 10.1177/0170840619882277.

Gherardi, Silvia (2020):

Torkild Thanem & David Knights: *Embodied Research Methods*. London: SAGE Publications, 2019.

[Review]. In: *Organization Studies* 41 (6), S. 901–904. DOI: 10.1177/0170840619872676.

Hirsch, Paul; Zyglidopoulos, Stelios (2020):

Thomas L. Friedman: *Thank You for Being Late: An Optimist's Guide to Thriving in the Age of Accelerations*. London, UK: Penguin UK, 2016, 560 pp. ISBN 0241300983, 9780241300985 // Niall Ferguson: *The Square and the Tower: Networks, Hierarchies and the Struggle for Global Power*. London, UK: Penguin UK, 2017, 608 pp. ISBN 0141984821, 9780141984827.

[Review]. In: *Organization Studies* 41 (3), S. 437–443. DOI: 10.1177/0170840619860780.

Moser, Christine (2020):

Hillary J. Shaw & Julia J.A. Shaw: *Corporate Social Responsibility, Social Justice and the Global Food Supply Chain*. London: Routledge, Routledge Studies in Management, Organizations and Society, 2019.

[Review]. In: *Organization Studies* 41 (7), S. 1046–1049. DOI: 10.1177/0170840619877839.

Munro, Iain (2020):

Kate Kenny: *Whistleblowing: Toward a New Theory*. Cambridge, MA: Harvard University Press, 2019.

[Review]. In: *Organization Studies* 41 (1, SI), S. 141–145. DOI: 10.1177/0170840619851713.

Nordberg, Donald (2020):

Daniel S. Milo: *Good Enough: The Tolerance of Mediocrity in Nature and Society*. Cambridge, MA: Harvard University Press, 320pp.

[Review]. In: *Organization Studies* 41 (6), S. 899–901. DOI: 10.1177/0170840619871177.

Passant, Adrien Jean-Guy (2020):

Mathieu Floquet, Pierre Labardin & Yves Levant (editors): *L'histoire comme méthode pour comprendre le management. Mélanges en l'honneur du Professeur Marc Nikitin*. Paris: L'Harmattan, 2017 [History as a method of understanding management. Blends in honor of Professor Marc Nikitin].

[Review]. In: *Organization Studies* 41 (1, SI), S. 145–148. DOI: 10.1177/0170840619847114.

Pawlak, Mikołaj (2020):

Izabela Ślęzak: *Praca kobiet świadczących usługi seksualne w agencjach towarzyskich* [The work of female sex workers in escort agencies] Łódź: Wydawnictwo Uniwersytetu Łódzkiego, 2016. 379 pages.

[Review]. In: *Organization Studies* 41 (12), S. 1749–1752. DOI: 10.1177/0170840619884036.

Perezts, Mar (2020):

*The Confessions of the Flesh*, Michel Foucault & Frédéric Gros, Paris: Gallimard, 2018, ISBN 9-782072-700347.

[Review]. In: *Organization Studies* 41 (9), S. 1333. DOI: 10.1177/0170840619882183.

Picard, Hélène (2020):

Antonio A. Casilli: *En attendant les robots. Enquête sur le travail du clic* [Waiting for Robots: An inquiry into click work] Paris: Seuil, 2019. 400 pages. ISBN 978-2-02-140188-2.

[Review]. In: *Organization Studies* 41 (12), S. 1752–1755. DOI: 10.1177/0170840619885071.

Raffnsøe, Sverre (2020):

*The formation of a new relationship to oneself. The Confessions of the Flesh*. Michel Foucault, Frédéric Gros, Paris: Gallimard, 2018, ISBN 9-782072-700347.

[Review]. In: *Organization Studies* 41 (9), S. 1333–1338. DOI: 10.1177/0170840619882189.

Rehn, Alf (2020):

Kirstin M. S. Bezio & Kimberly Yost (eds.): *Leadership, Popular Culture and Social Change* Cheltenham, UK: Edward Elgar, 2018; 240 pp.

[Review]. In: *Organization Studies* 41 (2), S. 294–296. DOI: 10.1177/0170840619856288.

Thompson, Neil A. (2020):

Betsy Campbell: *Practice Theory in Action: Empirical Studies of Interaction in Innovation and Entrepreneurship*. Abingdon, Oxon; New York, NY: Routledge, 2019.

[Review]. In: *Organization Studies* 41 (5), S. 727–729. DOI: 10.1177/0170840619869170.

Tourish, Dennis (2020):

Bert Spector: *Constructing Crisis: Leaders, Crises and Claims of Urgency*. Cambridge: Cambridge University Press, 2019.

[Review]. In: *Organization Studies* 41 (8), S. 1204–1207. DOI: 10.1177/0170840619884037.

Visser, Max (2020):

Rob Larson: Capitalism vs. Freedom: The Toll Road to Serfdom. Winchester: Zero Books, 2018. 228pp.

[Review]. In: *Organization Studies* 41 (4), S. 587–590. DOI: 10.1177/0170840619862225.

## Specials

Foroughi, Hamid; Coraiola, Diego M.; Rintamaki, Jukka; Mena, Sebastien; Foster, William M. (2020):

### Organizational Memory Studies.

[Perspectives]. In: *Organization Studies* 41 (12, SI), S. 1725–1748. DOI: 10.1177/0170840620974338.

#### *Abstract:*

This paper provides an overview and discussion of the rapidly growing literature on organizational memory studies (OMS). We define OMS as an inquiry into the ways that remembering and forgetting shape, and are shaped by, organizations and organizing processes. The contribution of this article is threefold. We briefly review what we understand by organizational memory and explore some key debates and points of contestation in the field. Second, we identify four different perspectives that have been developed in OMS (functional, interpretive, critical and performative) and expand upon each perspective by showcasing articles published over the past decade. In particular, we examine four papers previously published in *Organization Studies* to show the distinctiveness of each perspective. Finally, we identify a number of areas for future research to facilitate the future development of OMS.

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## Editorials

Law, David (2020):

How vulnerable are you?

[Editorial]. In: *Perspectives. Policy and Practice in Higher Education* 24 (2), S. 41–42. DOI: 10.1080/13603108.2020.1752566.

Law, David (2020):

Why do we do what we do?

[Editorial]. In: *Perspectives. Policy and Practice in Higher Education* 24 (1), S. 1–3. DOI: 10.1080/13603108.2020.1706823.

Tomkinson, Bland (2020):

Editorial.

[Editorial]. In: *Perspectives. Policy and Practice in Higher Education* 24 (3), S. 73–74. DOI: 10.1080/13603108.2020.1787720.

Tomkinson, Bland (2020):

Editorial.

[Editorial]. In: *Perspectives. Policy and Practice in Higher Education* 24 (4), S. 113–114. DOI: 10.1080/13603108.2020.1828698.

## Original Articles

Agostinho, Marta; Moniz Alves, Catarina; Aresta, Sandra; Borrego, Filipa; Borlido-Santos, Júlio; Cortez, João et al. (2020):

The interface of science. The case for a broader definition of research management.

In: *Perspectives. Policy and Practice in Higher Education* 24 (1), S. 19–27. DOI: 10.1080/13603108.2018.1543215.

*Abstract:*

This paper results from on-going reflection within the practitioners group Plataforma de Interface à Ciência (Platform of Professionals at the Interface of Science), an informal nationwide network in Portugal that brings together professionals involved in a large scope of activities related to research management, knowledge transfer and science communication. Due to the wide scope of functions and profiles of these professionals, they are not publicly nor institutionally recognised

as part of the same professional group, which raises barriers for their recognition as relevant players in the research & innovation ecosystem and full achievement of their potential. We take stock of the several definitions of their roles found in the literature and conclude on the need for an inclusive approach to consider these roles as a profession. We propose the designation of Professionals at the Interface of Science (PIoS) to name this wide group of professionals that sits at the interface at all scientific disciplines.

Akerman, Katie (2020):

#### Invisible imposter. Identity in institutions.

In: *Perspectives. Policy and Practice in Higher Education* 24 (4), S. 126–130. DOI: 10.1080/13603108.2020.1734683.

##### Abstract:

This paper considers *third space* professional staff and invisibility within institutions and the possibility of imposter syndrome. The binary profession perspective of individual institutions is compounded by the sector itself, which fails to recognise the unique identity of the *third space* professional in higher education, impeding career progression through an unnecessarily rigid adherence to an overly traditional approach to describing requirements for more senior roles in institutions. What might be done?

Bennett, Dawn; Knight, Elizabeth; Jevons, Colin; Ananthram, Subramaniam (2020):

#### Business students' thinking about their studies and future careers.

In: *Perspectives. Policy and Practice in Higher Education* 24 (3), S. 96–101. DOI: 10.1080/13603108.2020.1757530.

##### Abstract:

The enduring employability of twenty-first-century workers demands explicit and career-long attention. As a result, higher education finds itself tasked with enabling students to negotiate their career-long cognitive and social development as professionals and social citizens. Grounded in social cognitive theory, the study reported here seeks to understand students' career-related development. The participants reported in this article are 6,004 undergraduate business students enrolled with one of 32 Australian universities. The students created personalised employability profiles using an online tool. Drawing from the tool's data, the article reports students' text-based responses to the question of what they would change about their degree programmes. Students express concerns about the potential to establish a career as early as the first year of study. The findings suggest the value of adopting a research-informed, metacognitive approach to employability development to establish the relevance between the learning assigned to students and their future lives and work.

Bray, Esther (2020):

#### Creating your career, one connection at a time.

In: *Perspectives. Policy and Practice in Higher Education* 24 (1), S. 11–13. DOI: 10.1080/13603108.2019.1686083.

##### Abstract:

N.A.

Garland, Martine (2020):

#### How vulnerable are you? Assessing the financial health of England's universities.

In: *Perspectives. Policy and Practice in Higher Education* 24 (2), S. 43–52. DOI: 10.1080/13603108.2019.1689374.

*Abstract:*

The vagaries of market forces are presenting a financially challenging environment for the higher education sector in England. Intense competition is leaving those overly dependent on tuition fee income in an exposed position. Despite a strong narrative for the need to diversify funding in the available higher education literature, empirical studies examining the degree to which universities are financially diversified are sparse and lack contemporary relevance. This study is the first to produce a National Income Diversification Index for publicly-funded, generalist universities in England. In doing so, it develops a model for a more accurate financial assessment by disaggregating third-stream revenues from core income. The findings suggest established pre-1992 universities are more financially diversified and thus in keeping with modern portfolio theory, are less vulnerable to changes in their external environment. This paper calls for policymakers to include the level of income diversification in any measure of institutional financial health.

Gilani, David (2020):

**Creating connections. The role of universities in enhancing graduates' social capital and challenging nepotism.**

In: *Perspectives. Policy and Practice in Higher Education* 24 (1), S. 14–18. DOI: 10.1080/13603108.2019.1678528.

*Abstract:*

This thought piece attempts to explore the link between graduate employment and students' social capital within the context of UK higher education. It addresses the importance of social capital and the problems faced by graduates from lower socio-economic backgrounds when applying to graduate roles. It takes a practical approach by looking at examples of initiatives within universities, including a case study from Middlesex University, that support students to make connections and grow their professional networks. It also suggests how universities can play a role in challenging the nepotism that exists within recruitment practices.

Grinkevich, Yulia; Kuskova, Valentina; Shabanova, Maria (2020):

**Professional development programmes – why do universities need them? A case study from Russia.**

In: *Perspectives. Policy and Practice in Higher Education* 24 (3), S. 87–95. DOI: 10.1080/13603108.2019.1688880.

*Abstract:*

Using the case study of HSE University (Russian Federation), this article will focus on how professional development programmes can be used by universities to ensure transformations and achieve their goals. It will focus on the administrative (professional services) staff and how universities can develop and leverage their potential in order to encourage innovative problem-solving. First, it will explore what the current challenges and frequent transformations mean for academic institutions in terms of administrative support, and what new demands emerge for administrators. Second, it will propose what competencies and skills are necessary for university administrators, so that they can provide effective support to the university in its ongoing activities and development under constantly changing conditions. Third, it will argue for the benefits of creating tailored professional development programmes, as well as illustrate how such a programme can be structured according to the institution's needs citing the empirical example of HSE University.

Healey, Nigel Martin (2020):

**The end of transnational education? The view from the UK.**

In: *Perspectives. Policy and Practice in Higher Education* 24 (3), S. 102–112. DOI: 10.1080/13603108.2019.1631227.

*Abstract:*

The growth of transnational education has been a major focus of attention for the UK sector since 2010. During a period when international student recruitment has stagnated, transnational education (TNE) has been widely seen as an alternative way of diversifying revenue and building international profile for universities. The UK presently dominates the global TNE market. In 2017/2018, approximately 700,000 students were studying for UK higher education qualifications in their own country – more than twice the number of international (non-European Union) students who travelled to the UK to study. Despite the interest in TNE and the growth in offshore enrolments, there has been growing scepticism about the



net economic benefits of TNE and the sustainability of TNE models. This article reviews the drivers of TNE activity and concludes the high-tide mark for UK universities has been passed and that TNE may be entering a period of decline.

Holmes, Alex (2020):

**What are the barriers and opportunities for continuing professional development for professional services staff in UK HE?**

In: *Perspectives. Policy and Practice in Higher Education* 24 (3), S. 79–86. DOI: 10.1080/13603108.2020.1750501.

*Abstract:*

UK higher education has seen a shift towards greater businesslike operations and accountability, with increasingly specialised support roles and fewer ‘generalist’ administrators; however, professional training, structured career development and planning, and opportunities for continuing professional development (CPD) have been less well prioritised than similar activities in the academic and research staff groups, and little research currently exists to consider how professional services staff undertake and engage with professional development activities. A quantitative study of professional services staff was conducted in a large Russell Group university, where a significant number of professional services staff reported inequity of treatment compared to their academic colleagues. This paper examines the relationship between effective development review and institutional support for training and engagement with CPD activities by non-academic administrators, and aims to provide practical recommendations for improvements to practice.

Lehan, Tara J. (2020):

**Continuous improvement of the institutional review board at one completely online university. A transferable framework.**

In: *Perspectives. Policy and Practice in Higher Education* 24 (4), S. 131–135. DOI: 10.1080/13603108.2020.1792571.

*Abstract:*

To protect human subjects to the fullest extent possible, stakeholders must make time to reflect as well as engage in continuous-improvement efforts regularly using a rigorous framework. At one completely online university that primarily grants graduate degrees, stakeholders informally expressed complaints relating to various policies and practices of the institutional review board (IRB). Therefore, complementary to a formal survey relating to IRB policies and practices, an environmental scan was conducted of (1) policies and practices at peer and ‘top-ranked’ institutions and (2) best practices cited in the relevant literature. Many of the resulting recommendations were adopted by the university’s IRB to enhance its efficiency and effectiveness to support and serve student, faculty, and staff researchers more effectively. This framework can be implemented at other institutions at which researchers engage with the IRB from a distance.

McGill, Lydia (2020):

**Start-up company. How and why universities should nurture student friendships from day one.**

In: *Perspectives. Policy and Practice in Higher Education* 24 (1), S. 4–7. DOI: 10.1080/13603108.2019.1687110.

*Abstract:*

In a competitive sector where the big issues of recruitment, reputation and financial stability are at the forefront of many universities’ priorities, it is sometimes easy to overlook seemingly small issues that can nevertheless cause significant harm to both the institution and the individual. Students often begin their higher education journey with an expectation that they will make friends for life, and indeed they are sold this idea by the images we portray. However, many find themselves suffering with feelings of loneliness and perceived isolation, and this can have an adverse effect not just on their own wellbeing but on the health of the university they have joined. There are several ways in which universities can tackle this issue proactively. Institutions can expect to see far-reaching benefits by nurturing student friendships and helping these to flourish from Welcome Week onwards.

Sheehan Pundyke, Orla (2020):

### Change management in higher education: an introductory literature review.

In: *Perspectives. Policy and Practice in Higher Education* 24 (4), S. 115–120. DOI: 10.1080/13603108.2020.1809545.

#### Abstract:

This literature review provides an introduction to change management and reviews current approaches, theories and models which can be used to skillfully handle and direct change initiatives within higher education institutions (HEIs) so that the desired outcome is achieved. Planned approaches, psychological and behavioural theories, organisational development, Complex Adaptive Systems, Capability and Appreciate Inquiry are all discussed.

Tetrevova, Libena; Vlckova, Vladimira (2020):

### The role of inter-university cooperation in the knowledge society.

In: *Perspectives. Policy and Practice in Higher Education* 24 (1), S. 28–34. DOI: 10.1080/13603108.2018.1519491.

#### Abstract:

Inter-university cooperation is a source of economic growth and competitiveness in all knowledge societies. Our aim was to evaluate the scope, importance and applied forms of inter-university cooperation from the perspective of a small post-communist economy, the Czech Republic. This study is based on data obtained through a questionnaire survey among managers of higher education institutions (HEIs). The study shows that, with a few exceptions, all HEIs/faculties develop inter-university cooperation with workplaces from both the Czech Republic and abroad. More than half of the managers of HEIs/faculties consider this collaboration to be, at least, very significant. With all forms of cooperation, there is a higher percentage of their use by public and state HEIs in comparison to private HEIs. This cooperation plays a greater role from the point of view of HEIs/faculties of technical, scientific and medical specialization.

Tran, Linh Trang C.; LaCost, Barbara; Grady, Marilyn L. (2020):

### The leadership of senior international officers. A qualitative study.

In: *Perspectives. Policy and Practice in Higher Education* 24 (4), S. 136–145. DOI: 10.1080/13603108.2020.1802787.

#### Abstract:

The leadership of Senior International Officers is prevalent in guiding campus internationalisation efforts forward. This research is a part of a larger study exploring the role of Senior International Officers (SIO) at the California State University (CSU) system, specifically their unique leadership in the internationalisation initiatives on campus. The focus of the manuscript is on the SIO past experiences. The findings of the study provide insight into the position of SIOs specifically: who they are, why they went into the field, and why they decided to stay.

Veiga, Amélia; Magalhães, António; Videira, Pedro (2020):

### Strategizing and managing change in Portuguese higher education.

In: *Perspectives. Policy and Practice in Higher Education* 24 (2), S. 64–69. DOI: 10.1080/13603108.2019.1575294.

#### Abstract:

In Europe and beyond, managerialism triggered the rise of *boardism* as a distinctive governance praxis in higher education, involving both normative assumptions and technical and practical elements. In this paper, we examine to what extent strategizing processes in Portuguese higher education institutions reflect the reconfiguration of power relationships at the institutional level. The paper draws on survey data to examine the perceptions of the teaching staff and non-teaching staff in public and private Portuguese higher education institutions. It aims at identifying what strategizing processes reveal about the implications of the decrease of academic self-governance, the increase of managerial governance and the increasing influence of external members in the composition of the governing bodies. The analysis of the Portuguese case contributes to the understanding of governance challenges in managing change in a context of uncertainty with an eye on how governance practitioners might deal with the issues it raises.

Wolfe, Kelli (2020):

Service design in higher education. A literature review.

In: *Perspectives. Policy and Practice in Higher Education* 24 (4), S. 121–125. DOI: 10.1080/13603108.2020.1792573.

*Abstract:*

This literature review discusses management approaches British higher education institutions (HEIs) have adopted in their attempt to survive the turbulence of the last 20 years. From substantial changes in regulatory and financial frameworks to changing fundamental perceptions of whether higher education is a public or private good, HEIs are under ever-increasing pressure to outperform and outlast their peers. Service design logic, or simply service design, provides an excellent array of tools for effective change in the HE sector.

## Reviews

West, Andrew (2020):

Governing higher education today – international perspectives, edited by Tony Strike, Jonathan Nicholls, and John Rushforth, Abingdon, Routledge, 2019, 296 pp., £29.99 (paperback), ISBN: 1138366994.

[Review]. In: *Perspectives. Policy and Practice in Higher Education* 24 (2), S. 70–71. DOI: 10.1080/13603108.2019.1678529.

West, Andrew (2020):

The College Dropout Scandal, by David Kirp, New York, Oxford University Press, 2019, 175 pp., £16.99 (Hardcover), ISBN: 9780190862213.

[Review]. In: *Perspectives. Policy and Practice in Higher Education* 24 (1), S. 39–40. DOI: 10.1080/13603108.2019.1677797.

## Specials

Holmes, Alex (2020):

A two-way street. Enhancing professional services staff engagement through effective career planning, development, and appraisal.

[What Works?]. In: *Perspectives. Policy and Practice in Higher Education* 24 (1), S. 35–38. DOI: 10.1080/13603108.2019.1702597.

Manoharan, Aranee (2020):

Creating connections. Polymathy and the value of third space professionals in higher education.

[Viewpoint]. In: *Perspectives. Policy and Practice in Higher Education* 24 (2), S. 56–59. DOI: 10.1080/13603108.2019.1698475.

*Abstract:*

This think-piece explores the value of polymathic thinking as an alternative conception of mastery to the dichotomy between specialisation and generalisation, enabling universities to thrive within an increasingly turbulent policy

environment. It posits that the polymathic approach of 'third space professionals', namely their ability to bring together different areas of expertise to innovate, can help address the challenges of the modern university.

Matthews, Helen (2020):

Fundamental interconnectedness. A holistic approach to process improvements.

[Viewpoint]. In: *Perspectives. Policy and Practice in Higher Education* 24 (1), S. 8–10. DOI: 10.1080/13603108.2019.1688881.

O'Neill, Shane (2020):

Universities as instruments of social freedom.

[In my view]. In: *Perspectives. Policy and Practice in Higher Education* 24 (3), S. 75–78. DOI: 10.1080/13603108.2018.1544943.

Rainford, Jon (2020):

Creating connections to weather the storm of marketisation.

[Viewpoint]. In: *Perspectives. Policy and Practice in Higher Education* 24 (2), S. 53–55. DOI: 10.1080/13603108.2019.1699196.

Wadsley, Kirsty (2020):

Creating connections. Expanding horizons for professional services.

[Viewpoint]. In: *Perspectives. Policy and Practice in Higher Education* 24 (2), S. 60–63. DOI: 10.1080/13603108.2019.1691672.

*Abstract:*

Through personal opinion, experience, and where appropriate wider evidence the piece explores the personal and professional benefits of creating connections, especially in professional service roles; the current dearth of international connectedness for professional service staff; and a possible model for encouraging greater creation and utilisation of connections for professional service staff in UKHE. The piece makes the case that creating connections, especially those that go beyond professional service staffs' immediate areas of knowledge and experience, are vital not just for surviving the current HE climate but also for finding a way to thrive within it.

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## Editorials

Hazelkorn, Ellen; Locke, William (2020):

The pandemic, the recovery and broadening our perspectives on higher education policy.

[Editorial]. In: *Policy Reviews in Higher Education* 4 (2), S. 131–134. DOI: 10.1080/23322969.2020.1790865.

Wit, Hans de (2020):

Editorial.

[Editorial]. In: *Policy Reviews in Higher Education* 4 (1), S. 1–3. DOI: 10.1080/23322969.2020.1712003.

## Original Articles

Barlete, Aliandra Lazzari (2020):

The policy trajectory of the EU – Latin America and Caribbean inter-regional project in higher education (1999–2018).

In: *Policy Reviews in Higher Education* 4 (1), S. 45–67. DOI: 10.1080/23322969.2019.1693908.

*Abstract:*

This paper seeks to analyse the policy trajectory of the inter-regional plans to establish a common space in higher education (HE) involving the European Union (EU) and Latin America and the Caribbean (LAC) regions. Although both regions developed different formats of higher education cooperation programmes, it was in 1999 that an institutionalised bi-regional dialogue appeared – and HE was defined as a strategic partnership. In November 2000, ministers of education on both sides of the Atlantic launched the largest HE project to date: the EU-LAC (ALCUE) HE Common Area, involving 60 HE systems. Understanding (inter-)regional HE policies as an expression of global education policies, I conducted a historical analysis of this inter-regional policy from 2000 until 2018 using Roger Dale's framework of pluri-scalar governance of education. The tracing of the events since 1999 helped unveil the mechanisms of changes in this inter-regional policy. As a result, I was able to differentiate between two moments in the policy process: the ALCUE Project (2000–2008) and the EU-CELAC dialogue (2010–2018). Results point to the defining role of the EU in shaping the inter-regional dialogue in terms of regional mandate and actorness. The research shows that the advent of CELAC as a regional actor in Latin America in 2010 has strengthened the role of the EU in defining the inter-regional HE project.

Behle, Heike (2020):

Students' and graduates' employability. A framework to classify and measure employability gain.

In: *Policy Reviews in Higher Education* 4 (1), S. 105–130. DOI: 10.1080/23322969.2020.1712662.

*Abstract:*

Employability has become one of the most important outcomes of higher education despite it being weakly conceptualised for the sector. The lack of an accepted conceptualisation to address students' and graduates' employability results in difficulties when comparing research findings and therefore in assessing quality in higher education provision. This paper addresses this gap in the conceptualisation of employability and adapts an established framework so that it aligns with the higher education sector. Employability is defined as 'the ability to find, keep and progress in graduate employment'. A holistic framework composed of four categories ('individual factors'; 'individual circumstances'; 'enabling support system'; 'labour market') is used to classify and measure employability. This allows for an understanding of how specific initiatives enhance the employability of students and graduates, and suggests ways to measure this impact. Also, the limitations of HEIs to impact students' employability are addressed using the framework. The examples of Germany and England show how differences in employability occur due to differences in the surrounding labour market. The paper concludes that in a complex and holistic discussion it is necessary to highlight the various indicators, including the labour market, which were used to report more nuanced aspects of employability.

Dougherty, Kevin J.; Callender, Claire (2020):

### Comparing and learning from English and American higher education access and completion policies.

In: *Policy Reviews in Higher Education* 4 (2), S. 203–227. DOI: 10.1080/23322969.2020.1737959.

*Abstract:*

England and the United States provide a very interesting pairing as countries with many similarities, but also instructive dissimilarities, with respect to their policies for higher education access and success. We focus on five key policy strands: student information provision; outreach from higher education institutions; student financial aid; affirmative action or contextualisation in higher education admissions; and programmes to improve higher education retention and completion. At the end, we draw conclusions on what England and the US can learn from each other. The US would benefit from following England in using Access and Participation Plans to govern university outreach efforts, making more use of income-contingent loans, and expanding the range of information provided to prospective higher education students. Meanwhile, England would benefit from following the US in making greater use of grant aid to students, devoting more policy attention to educational decisions students are making in early secondary school, and expanding its use of contextualised admissions. While we focus on England and the US, we think that the policy recommendations we make carry wider applicability. Many other countries with somewhat similar educational structures, experiences, and challenges could learn useful lessons from the policy experiences of these two countries.

Kasa, Rita; Ait Si Mhamed, Ali; Rydchenko, Viktoriya (2020):

### Mapping the implementation of higher education funding reform in Kazakhstan. Policy resources perspective.

In: *Policy Reviews in Higher Education* 4 (2), S. 228–246. DOI: 10.1080/23322969.2020.1793217.

*Abstract:*

Policy implementation research suggests that the likelihood of policy success, i.e. matching policy outcomes with expectations, can be best assessed by engaging the bottom-up perspectives of those who will implement the policy. This paper works from this premise and examines the views of university leaders in Kazakhstan on the potential impact of a per capita per credit higher education funding model proposed for implementation at their universities. The policy expectation is that such a higher education funding model will promote student choice, university quality and competitiveness. Applying resources for a policy implementation perspective, this article discusses concerns associated with the implementation of the proposed model. The findings suggest that the match between the policy expectations and the goal of strengthened student choice will be contingent upon the ability of universities to introduce organisational processes that enable such a choice. Advancing the quality and competitiveness of universities will be conditioned by university access to funding and the acceptance of personnel of both structural and cultural changes associated with the implementation of the new policy. This article contributes to policy implementation studies of higher education systems in transition.

Owusu-Agyeman, Yaw; Amoakohene, Gertrude (2020):

Transnational education delivery in Ghana. Examining the benefits, challenges and future prospects.

In: *Policy Reviews in Higher Education* 4 (2), S. 135–163. DOI: 10.1080/23322969.2020.1774408.

*Abstract:*

Transnational education (TNE) has developed over the years as a branch of international education that focuses on cross-border teaching and learning through local partners and branch campuses in host countries. While there have been concerns over the quality of TNE delivery in host countries, there is a paucity of empirical research that highlights education delivery, especially in host institutions. This study examines the benefits, challenges and prospects of TNE delivery in a host institution in Ghana. Using a mixed-method approach, we collected and analysed data from management representatives (n = 2), academic staff (n = 5) and students (n = 197). Results show that TNE enhances students' learning experiences through diversified and reflective curriculum, highly rated pedagogical approach and acquisition of knowledge in global business practices. Lecturers reported enhanced pedagogical skills and knowledge of cutting-edge quality assurance and assessment processes. Challenges such as lack of clear policy guidelines governing TNE partnership, cultural differences among partners, inadequate learning resources for students, high cost of fees and difficulty in designing a bespoke curriculum to meet local needs were highlighted. The study further articulates the importance of developing policies that guide TNE delivery and the relationship between partners by regulatory bodies in the higher education sector.

Shattock, Michael; Horvath, Aniko (2020):

The decentralisation of the governance of UK higher education. The effects of devolution to Scotland, Wales and Northern Ireland, and on England.

In: *Policy Reviews in Higher Education* 4 (2), S. 164–178. DOI: 10.1080/23322969.2020.1751688.

*Abstract:*

This article explores the impact of devolution from a centralised UK governance model on universities in Scotland, Wales, Northern Ireland and England, and shows how a unified system of higher education has been transformed into four systems with contrasting aims and objectives. The structure that has been arrived at makes the UK Government directly responsible for English higher education, the largest of the four systems, but the devolved nations often find themselves making policies which are reactive to or opposed to those adopted by the English system. It argues that devolution may not have been good for the English system where the freedom to adopt a fully marketised policy with its consequential reinforcement of differentiation between institutions and its encouragement of the establishment of a 'business model' of institutional governance would have been resisted by political representation from Scotland and Wales, both unsympathetic to the approach adopted in England. It concludes that the creation of devolved systems in Scotland and Wales has been successful in that it has increased the diversity of UK higher education and moved universities closer to their regions. However, devolution has not served Northern Ireland well because of the stalemate in the political life there.

Stack, Michelle (2020):

Academic stars and university rankings in higher education. Impacts on policy and practice.

In: *Policy Reviews in Higher Education* 4 (1), S. 4–24. DOI: 10.1080/23322969.2019.1667859.

*Abstract:*

Drawing on the concepts of mediatisation and celebrification, this paper analyses how the Nobel Prize is used as a proxy of excellence by the 'Big Three' university rankers and top-ranked universities. Ranking advisories, university leadership at top-ranked institutions, and Nobel Prize adjudication committees are overwhelming from the same demographic: white men from the Global North. Who they deem 'world class' is overwhelmingly from the same demographic. Even though universities no longer have policies that keep out equity-seeking groups, the metrics used to determine world-classness re-entrench who is seen as a scholarly and administrative leader in higher education and what is considered world class knowledge.

Drawing on social network analysis and multimedia critical discourse analysis, this paper argues that Nobel adjudication committees, ranking advisories and the leadership of top-ranked institutions form an echo chamber that conflates academic excellence with being white, male, wealthy, and famous. The paper concludes with the urgent need to address

the cognitive dissonance of universities promoting spurious media-based metrics while at the same time claiming a commitment to equity policies and practices.

Stage, Andreas Kjær (2020):

Are national university systems becoming more alike? Long-term developments in staff composition across five countries.

In: *Policy Reviews in Higher Education* 4 (1), S. 68–104. DOI: 10.1080/23322969.2019.1702088.

*Abstract:*

National university systems have traditionally been characterised by major differences in both internal structures and external conditions. However, the global rise of the knowledge economy has made external conditions of universities more similar across countries. This paper investigates to what extent this convergence has been mirrored *within* the universities by systematically comparing staff changes over more than a decade in five countries: The United States, the United Kingdom, Germany, Norway, and Denmark. Measures of staff changes are partial but tangible indicators, which are reasonably comparable across countries and over time. The empirical analysis isolates and examines two parallel staff trends, which the higher education literature currently highlights as crucial for ongoing university transformations: Proliferation of temporary academic staff and professionalisation of administrative/managerial staff. In doing so, the analysis provides a tangible empirical basis for assessing the impact of global trends on historically distinct university systems. Staff compositions have changed in the same direction, but from different starting points and with different intensity. Staff changes have been larger in Europe than in the US, but not in ways erasing major historical differences. The directional similarity rather suggests that dissimilar universities have added a similar layer of certain types of human resources.

Xu, Cora Lingling (2020):

Tackling rural-urban inequalities through educational mobilities. Rural-origin Chinese academics from impoverished backgrounds navigating higher education.

In: *Policy Reviews in Higher Education* 4 (2), S. 179–202. DOI: 10.1080/23322969.2020.1783697.

*Abstract:*

Existing scholarship on marginalised academics is mostly western-based and concerned with inequalities caused by class, gender and/or racial and ethnic differences. This article adds to this literature by highlighting how inequalities caused by the urban-rural divide in China adversely impact on the academic trajectories of rural-origin academics from impoverished backgrounds. To mitigate such inequalities, the 26 interviewed academics drew on their academic capital to achieve institutional and geographic mobilities, both within and beyond China. Such educational mobilities further allowed these scholars to convert into and accumulate economic, social, cultural and symbolic capitals (after Bourdieu). Importantly, their rural-origins and disadvantaged positioning had cultivated in them a productive habitus that is characterised by hard work, perseverance and self-discipline. Such a habitus played a pivotal role in orchestrating their academic ascension and upward social mobility. However, despite these successes, this article also reveals these academics' perennial financial struggles in lifting their rural-based families out of poverty, and the exclusive nature of educational mobilities, which are manifestations of systemic structural inequalities caused by urban-biased policies.

Young, Stacey J.; Piché, Pierre G.; Jones, Glen A. (2020):

Student pathways and differentiation policies in Ontario. Are they compatible?

In: *Policy Reviews in Higher Education* 4 (1), S. 25–44. DOI: 10.1080/23322969.2019.1679662.

*Abstract:*

Over the last 15 years, the government of Ontario, Canada began seeking ways to deliver and expand higher education in a more cost effective and sustainable manner through the introduction of two major policy goals: greater institutional differentiation and the expansion of student pathways. This paper will attempt to determine the compatibility of these two policy goals through a review of the relevant literature to determine if the policies are aligned from an efficiency and



effectiveness, and public policy perspective. It will also identify a number of policy levers used in Ontario that may affect the extent of diversity and student pathways through document analysis, to assess their compatibility by making a limited use of the field of organisational theory as a lens to place the policies into context. It will also examine the extent to which various institutional types in Ontario have been engaged in student mobility and will compare and contrast the various strategies used to satisfy these public policy goals through textual analysis to highlight current successful institutional strategies that can be used by other jurisdictions. It will conclude with some key observations that the authors feel are necessary for either policy goal to succeed.

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## Editorials

Williams, James (2020):

Editorial.

[Editorial]. In: *Quality in Higher Education* 26 (1), S. 1–2. DOI: 10.1080/13538322.2020.1743501.

Williams, James (2020):

Editorial.

[Editorial]. In: *Quality in Higher Education* 26 (2), S. 115–116. DOI: 10.1080/13538322.2020.1781335.

Williams, James (2020):

Editorial.

[Editorial]. In: *Quality in Higher Education* 26 (3), S. 241–242. DOI: 10.1080/13538322.2020.1830923.

## Original Articles

Ashour, Sanaa (2020):

Quality higher education is the foundation of a knowledge society. Where does the UAE stand?

In: *Quality in Higher Education* 26 (2), S. 209–223. DOI: 10.1080/13538322.2020.1769263.

*Abstract:*

Since 1997, the United Arab Emirates (UAE) has invested in higher education and its expansion as part of its commitment to building a knowledge-based society. Though the UAE has prioritised quality higher education, it still faces challenges in producing graduates who are capable of actively participating in building its knowledge base. The literature reveals a clear mismatch between the qualities of university graduates and continually changing labour market needs. Along with demographic challenges, cultural and institutional factors impede progress. This paper discusses these challenges and offers policy recommendations designed to support the UAE in its goal of Emiratising its workforce and creating a knowledge-based society.

Bendixen, Carsteny; Jacobsen, Jens Christian (2020):

### Accreditation of higher education in Denmark and European Union. From system to substance?

In: *Quality in Higher Education* 26 (1), S. 66–79. DOI: 10.1080/13538322.2020.1729310.

#### Abstract:

The Bologna Process was an attempt to build and coordinate OECD countries' higher education systems through, inter alia, strategic public investment. The Lisbon Strategy 2000-2010 was a continuation of the Bologna process that also highlighted the coordination of education and research based on market-based funding models. Similarly, education and institutional accreditations have focused on the relevance criteria for quality of education and define first and foremost relevance as relevant to the labour market. However, education is a national question and must solve tasks for society in general. Relevance as criteria for quality in higher education should not only include employability, it should also refer to other expectations and demands that society ask for. Education is a public good and should, as a publicly funded system, set national targets for education.

Benito, Eva; Verge, Tania (2020):

### Gendering higher education quality assurance. A matter of (e)quality.

In: *Quality in Higher Education* 26 (3), S. 355–370. DOI: 10.1080/13538322.2020.1769268.

#### Abstract:

Gender equality goals for higher education are found in all national legislations. This notwithstanding, quality assurance conceptual frameworks and practitioners' work in the European Higher Education Area have tended to be gender-blind and thus remained disconnected from gender equality concerns. Focusing on the policy innovations recently introduced by the Swedish and the Catalan quality assurance agencies, the article addresses two intertwined questions, namely what does a gender-sensitive quality assurance framework look like and how to contextualise quality assessments within the gendered dynamics that pervade the work and study environments of higher education institutions. These two case studies show that gendering quality assurance can stir an institutional self-redefinition in contributing to embedding the gender perspective in their quality culture. Although mainstreaming gender in the operation of higher education institutions and in the design and implementation of their programmes entails a gradual learning process, external assessments constitute an accelerating incentive.

Cameron, Celia L. (2020):

### Organisation-based self-esteem in higher education. Exploring subgroup differences in perceptions of worth.

In: *Quality in Higher Education* 26 (2), S. 117–134. DOI: 10.1080/13538322.2020.1751308.

#### Abstract:

To date there is limited research on organisation-based self-esteem within the higher education environment. This quantitative study addresses that gap by investigating the differences in organisation-based self-esteem between two subgroups: academic teaching staff ('faculty' in the United States) and administrative staff, excluding senior managers, ('staff' in the United States). Through analysis of variance and factor analyses of 233 survey respondents across five small liberal arts institutions in North Eastern United States, this study suggests self-esteem imbalances between the two subgroups. Results point towards subgroup inequities in perceived value that can lead to reduced engagement, commitment and positive organisational behaviours. The study offers organisation-based self-esteem as a new data point for institutions striving to provide the best outcomes for students and the employee groups that support them. It provides targeted interventions and challenges academic organisations to reflect on processes and cultural norms that may be negatively affecting students and employees.

Cherkezishvili, David; Sanikidze, Tamar; Gibbs, Paul (2020):

**Modern challenges. The socio-political issues of introducing professional and practice in doctoral education in the emerging economy of Georgia.**

In: *Quality in Higher Education* 26 (1), S. 98–113. DOI: 10.1080/13538322.2020.1728834.

*Abstract:*

The development of applied-practice or professional doctorates has implications for the roles of not only academics and students but also the commercial drivers in the knowledge economy. The changes suggest that it is in the common good for developing economies, as well as benefiting both private economic and social capital. Universities worldwide are now offering doctoral degrees that relate more closely to the field of practice. The changing role of doctorates reflects the aim of universities to become more relevant, both economically and socially, yet this may not be in line with the objectives of the state. A principal-agent theory is used as the lens to explore the challenges faced in developing practice-based doctorates in Georgia, where governance is currently externalised and centralised and where the only doctorates recognised are academic. This form of external control may contribute to delay in adopting professional doctorates and any changes may challenge the entire system.

Della Volpe, Maddalena; Esposito, Francesca (2020):

**Discursive practices about third mission. A survey from Italian universities official websites.**

In: *Quality in Higher Education* 26 (2), S. 224–239. DOI: 10.1080/13538322.2020.1742954.

*Abstract:*

This article aims to analyse Italian universities' official websites discursive practices to assess their involvement in the university third mission: the contribution by universities to the social and economic development of the environment in which they act. To achieve it, textual data were extracted from the official websites of the 91 Italian universities and, using linguistic resources specifically built for this purpose, these data were processed with the natural language processing environment NooJ. Lexical information was extracted and a semantic analysis was conducted. The main results of which suggest that the third mission topic does not emerge very prominently on universities' official websites. Actually, it is mostly associated with an economic valorisation of research rather than to a social commitment. As a matter of fact, universities that pay attention to discursive practices design the interaction processes with communities, improving quality performances in the third mission.

Harvey, Lee (2020):

**Research fraud. A long-term problem exacerbated by the clamour for research grants.**

In: *Quality in Higher Education* 26 (3), S. 243–261. DOI: 10.1080/13538322.2020.1820126.

*Abstract:*

This account explores the form and extent of research fraud, the time it takes to investigate these frauds and the inadequacy of university investigations. There also appears to be reluctance to communicate details about fraudulent papers to the scientific community. The sensationalist reporting of fraud is explored. Underlying the analysis is the question as to whether the structure of rewards in higher education encourages research fraud. The analysis addresses the structure of rewards in higher education and the impact that has on researchers, creating the potential for the normalisation of research fraud.

Hill, Sophie; Rusaw, David F.; Goihl, Tobias; Hjerman, Anne Katrine; Schwannborg, Linn Reed; Bauge, Krister (2020):

**Development of national curriculum guidelines using a modified RAND/UCLA appropriateness method.**

In: *Quality in Higher Education* 26 (3), S. 323–336. DOI: 10.1080/13538322.2020.1769266.

*Abstract:*

In 2017, the Norwegian Ministry of Education and Research implemented a project to develop curriculum guidelines for all health and social care programmes. The modified RAND/UCLA appropriateness method used by the group developing guidelines for programmes in prosthetics and orthotics is described. The method resulted in 126 learning outcomes that were condensed into 48, encompassed within eight competency areas. This number is greater than the number of learning outcomes found in most existing syllabi but comparable to those found in similar work carried out internationally. The article suggests that the RAND/UCLA appropriateness method is a suitable method to deploy in the development of curriculum guidelines.

Hou, Angela Yung Chi; Hill, Christopher; Guo, Chao Yu; Tsai, Sandy; Justiniano Castillo, Dewin R. (2020):

A comparative study of relationship between the government and national quality assurance agencies in Australia, Japan, Malaysia and Taiwan. Policy change, governance models, emerging roles.

In: *Quality in Higher Education* 26 (3), S. 284–306. DOI: 10.1080/13538322.2020.1778613.

*Abstract:*

In recent years, governmental policy changes have exerted significant impact on the structural transformation, role diversity and commercialisation of national quality assurance agencies in many nations. Due to policy change, ongoing structural transformation and emerging roles, four national quality assurance agencies in Australia, Japan, Malaysia and Taiwan were selected as case studies. The study presents three major findings. First, although a state-controlled governance model remained popular in all cases, the university-led and supermarket models were chosen due to changes in policy. Second, case agencies intended to develop new roles in order to respond to policy change and public demands, particularly enhancing professionalism, redefining the relationship with universities as partners, strengthening the linkage with international quality assurance networks, providing quality assurance services with foreign providers. Third, autonomy and independence remain a considerable challenge for quality assurance agencies.

Pham, Huong Thi; Nguyen, Cuong Huu (2020):

Academic staff quality and the role of quality assurance mechanisms. The Vietnamese case.

In: *Quality in Higher Education* 26 (3), S. 262–283. DOI: 10.1080/13538322.2020.1761603.

*Abstract:*

Quality assurance in higher education has been introduced in Vietnam to improve the quality of the entire sector. Academics are considered key players in the reform plan of the Vietnamese government. This paper discusses the development of the Vietnamese quality assurance approach in higher education reform and how it could be further developed to improve higher education based on an analysis of current practices related to academic staff development. Data collected from documentation and in-depth interviews with thirty-six participants from three universities have been analysed for patterns and themes. The results indicate that assuring the academic staff quality in Vietnam is an urgent need. The role of the quality assurance approach, however, seems to be limited in this aspect. Therefore, it is suggested that the Vietnam quality assurance policies be re-visited to ensure that minimum standards are maintained and to promote institutional commitment to improve the quality of higher education.

Isaeva, Razia; Eisenschmidt, Eve; Vanari, Katlin; Kumpas-Lenk, Kaija (2020):

Students' views on dialogue. Improving student engagement in the quality assurance process.

In: *Quality in Higher Education* 26 (1), S. 80–97. DOI: 10.1080/13538322.2020.1729307.

*Abstract:*

The university-student partnership during the quality assurance process has gained considerable attention in policy documents as well as in the research into higher education. An effective dialogue is critical for engaging students in continuous improvement of higher education. Therefore, this qualitative study explored how student engagement in the

quality assurance process can be improved by an effective university-student dialogue. Based on interviews carried out with 27 students, the study concluded that students were eager to take part in the quality assurance process. However, the students' understanding of what the university expects from them, their roles and responsibilities, should be made clear in order to effectively involve students in the quality assurance process. Students are seeking interaction: they would like to be engaged in the dialogue, collaboratively solve the issues concerning their studies, provide feedback and receive up-to-date information about the universities' development plans.

Kacaniku, Fjolla (2020):

**Towards quality assurance and enhancement. The influence of the Bologna Process in Kosovo's higher education.**

In: *Quality in Higher Education* 26 (1), S. 32–47. DOI: 10.1080/13538322.2020.1737400.

*Abstract:*

This paper analyses the unique case of Kosovo alongside the broad context of the European Higher Education Area (EHEA) development. Kosovo started implementing the Bologna Process in 2001, although to date, it has not been formally admitted as a member. This paper provides evidence on the impact of the Bologna-influenced reforms on developing quality assurance and enhancement in Kosovo's higher education during 2001-2019. The study opted for a qualitative method design combining content analysis and semi-structured interviews to investigate both the normative and operational aspects of institutional learning and change that followed these reforms. The study builds on other Bologna-related studies, demonstrating that higher education institutions have placed accountability at the forefront of their ambitions. Findings recommend that a balance between quality control and improvement is imperative towards developing a quality culture. Therefore, there is a need to redistribute quality assessment 'power' equally among all stakeholders in higher education.

Khamis, Tashmin; Scully, Sam (2020):

**Questioning the efficacy of quality assurance frameworks for teaching and learning. A case study from East Africa.**

In: *Quality in Higher Education* 26 (1), S. 3–13. DOI: 10.1080/13538322.2020.1728836.

*Abstract:*

Increasingly across many jurisdictions, external quality assurance agencies are requiring higher education institutions to develop internal quality assurance systems that grant ownership of programme improvement to those implementing teaching and learning. Whilst this development is laudable, the quality assurance frameworks used for this process appear to focus on a comprehensive list of 'cells' and criteria against which to assess academic standards. However, these standards vary in their degree of relevance to teaching and learning and are not always evidence-based. An internal quality assurance framework used across East Africa is analysed and comparisons are made with indicators of quality that are known to affect teaching effectiveness and student learning outcomes. These comparisons highlight the need for quality assurance agencies to develop internal quality assurance frameworks for programme review that focus on the quality of the learning experience to ensure improved programme provision.

Lucander, Henriette; Christersson, Cecilia (2020):

**Engagement for quality development in higher education. A process for quality assurance of assessment.**

In: *Quality in Higher Education* 26 (2), S. 135–155. DOI: 10.1080/13538322.2020.1761008.

*Abstract:*

This paper reports on the design, development and evaluation of a novel process for quality assurance of assessments for entire educational programmes. The process was developed and tested by multidisciplinary teaching staff and consists of five phases: inventory, analyses, evaluation, planning change and realising change. The process for quality assurance was evaluated in three diverse programmes. The results show that the process forms a solid base for decisions on short-term as

well as long-term quality improvements. It was also found to encourage the development of a quality culture and had an improving effect on the curriculum design, enhanced internal quality work and supported documentation for external quality assurance. The results show that the process has the capacity to engage and involve teachers and other internal stakeholders in the quality development of a range of educational programmes, promoting engaged change for improved quality in a higher education institution.

Manatos, Maria J.; Huisman, Jeroen (2020):

The use of the European Standards and Guidelines by national accreditation agencies and local review panels.

In: *Quality in Higher Education* 26 (1), S. 48–65. DOI: 10.1080/13538322.2020.1728835.

*Abstract:*

In this explorative study, the translation perspective from organisational studies is taken to analyse how national accreditation agencies interpret the so-called European Standards and Guidelines (ESG) and adjust these to the domestic context. Additionally, the study investigates how review panels make use of the ESG vocabulary in their review reports. The empirical materials stem from a variety of 17 higher education institutions in Croatia, Estonia, Finland and Portugal. The findings illustrate the translation processes (copying and modification) taking place and reveal that particularly national quality assurance frameworks often deviate from the ESG. Review panels stay fairly close to the domestic frameworks.

Momunalieva, Anara; Urdaletova, Anarkul; Ismailova, Rita; Abdykeev, Ernis (2020):

The quality of higher education in Kyrgyzstan through the eyes of students.

In: *Quality in Higher Education* 26 (3), S. 337–354. DOI: 10.1080/13538322.2020.1790122.

*Abstract:*

In this study, the perceived quality of higher education in the Kyrgyz Republic was analysed from the students' perspective. The factors affecting the university choice as well as factors defining the perceived quality of education were investigated using a quantitative approach. The results of the study revealed that students perceive the quality of higher education in the country as rather satisfactory. The difference was observed among responses collected from different universities. Besides, the satisfaction of students from universities located in different regions differs: surprisingly, students from remote regions perceive education provided by their universities as a higher quality education than those from central universities. In addition, it was observed that factors such as university infrastructure, financial or other types of support, qualification of teachers and attitude of staff towards students also defined their perception of education quality.

Nudzor, Hope Pius; Ansah, Francis (2020):

Enhancing post-graduate programme effectiveness through tracer studies. The reflective accounts of a Ghanaian nation-wide graduate tracer study research team.

In: *Quality in Higher Education* 26 (2), S. 192–208. DOI: 10.1080/13538322.2020.1763034.

*Abstract:*

Graduate tracer studies have come to represent one of the key approaches for enhancing study programme effectiveness in contemporary higher education. This has led to a surge in graduate tracer studies by Ghanaian higher education institutions. However, reflective practices on challenges and lessons from these studies are lacking. Through focus-group discussions and individual interviews with members of a research team that undertook a nation-wide data collection in connection with a graduate tracer study, this article distils challenges the research team struggled to surmount and lessons learnt for the conduct of future graduate tracer studies within the context of Ghana. Against the backdrop of the insights generated and discussed, it is concluded that reflective research exercises, such as the one reported in this article, are a scholarly imperative for continuous improvement in the conduct of graduate tracer studies, which is rarely undertaken in the Ghanaian higher education context.

Rahnuma, Naureen (2020):

**The Bangladeshi higher education quality assurance framework. A pathway for transformation.**

In: *Quality in Higher Education* 26 (1), S. 14–31. DOI: 10.1080/13538322.2020.1729309.

**Abstract:**

Bangladesh's approach to devising a Quality Assurance Framework in higher education has eventuated in less than a decade. The framework provides criteria within which universities must operate and encompasses internal self-assessment review and monitoring besides external quality assurance, with the intrinsic goal of operationalising national protocols for a qualification framework. Based on the author's reflection regarding a programme self-assessment exercise as part of internal quality assurance procedure, this paper aims to present an overview of Bangladesh's higher education through contextualisation of the quality assurance initiatives. By analysing the scopes and limitations in the enhancement of quality, this article also proposes how a robust internal quality assurance framework is indispensable to hasten the process of programme accreditation. The article concludes with some recommendations for future revision of Bangladesh's quality assurance system.

Schmidt, Uwe; Chau, Ly Thi Minh; Dagdagan, Jacqueline; Fuhrmann, Michaela; Lam, Dao Phong; Niedermeier, Frank; Koehler, Anke (2020):

**Discourse-based evaluation and quality management in higher education institutions. A German-Vietnamese case study of the collegial audit.**

In: *Quality in Higher Education* 26 (2), S. 156–173. DOI: 10.1080/13538322.2020.1762297.

**Abstract:**

This article presents experiences and conclusions of an audit approach that focuses on the thesis that universities can gain most from external impulses when actively acquired and adapted by participants. This approach dubbed 'collegial audit' refers to the idea of autopoietic systems according to Luhmann and the consideration that systems do not influence but rather irritate each other. Discussed in this article are shared experiences with the collegial audit approach from a cooperation project between two German and two Vietnamese universities. The main finding is that the collegial audit contributes to an exchange among reliable partners on equal terms, as the change in the role of the external parties from evaluators to questioners has strengthened the actors' readiness to reflect. The cultural differences of the participating universities were challenging but proved to be conducive to the idea of irritation provoking reflection on adaptation.

Shcheglova, Irina; Gorbunova, Elena; Chirikov, Igor (2020):

**The role of the first-year experience in student attrition.**

In: *Quality in Higher Education* 26 (3), S. 307–322. DOI: 10.1080/13538322.2020.1815285.

**Abstract:**

Quality assurance in higher education often emphasises the importance of lowering student attrition. The first year of study is a crucial period for mitigating risks of attrition as this is the time when students develop a sense of belonging, and academic and personal connections. This study explores the long-term effects of the first-year student experience on attrition during their four years of study using two longitudinal datasets from a highly selective Russian university. First-year student data from the Student Experience in the Research University (SERU) survey for two cohorts of students with graduation data four years later were combined to identify factors that increase attrition. Student disengagement and lower academic aspirations during the first year of study are associated with student attrition in both cohorts. Policy implications of the findings for Russia and post-communist higher education systems with attrition linked to academic performance are discussed.

Wynne, Carlise Womack; Satchwell, Deryck (2020):

**Revolution in the trenches: building capacity through quality assurance in Belize. A case study.**

In: *Quality in Higher Education* 26 (2), S. 174–191. DOI: 10.1080/13538322.2020.1759189.



*Abstract:*

This article outlines a case study of creating a system of quality assurance in Belize while also building the capacity of teaching staff in order to support the process of establishing quality standards in tertiary education. This case study outlines the process of establishing the first quality assurance system in the nation's history as well as the instruction, mentoring and coaching provided to support capacity building as the implementation of standards were rolled out. The culmination of the initial two years of the pilot resulted in the first external review of an institution in the nation's history. Challenges and limitations of the programme are addressed as well as the successes each institution experienced in the initial two years of implementation. The pilot programme has yielded great interest in data collection and analysis as well as professional development to facilitate a culture shift from oral interpretation to data-driven decision making.

## Editorials

Leydesdorff, Loet; Ràfols, Ismael; Milojević, Staša (2020):

Bridging the divide between qualitative and quantitative science studies.

[Editorial to Special Issues: Bridging the divide between qualitative and quantitative science studies]. In: *Quantitative Science Studies* 1 (3), S. 918–926. DOI: 10.1162/qss\_e\_00061.

Waltman, Ludo; Larivière, Vincent (2020):

Special issue on bibliographic data sources.

[Editorial to Special Issue: Bibliographic data sources]. In: *Quantitative Science Studies* 1 (1), S. 360–362. DOI: 10.1162/qss\_e\_00026.

Waltman, Ludo; Larivière, Vincent; Milojević, Staša; Sugimoto, Cassidy R. (2020):

Opening science. The rebirth of a scholarly journal.

[Editorial]. In: *Quantitative Science Studies* 1 (1), S. 1–3. DOI: 10.1162/qss\_e\_00025.

## Original Articles

Aagaard, Kaare; Kladakis, Alexander; Nielsen, Mathias W. (2020):

Concentration or dispersal of research funding?

In: *Quantitative Science Studies* 1 (1), S. 117–149. DOI: 10.1162/qss\_a\_00002.

*Abstract:*

The relationship between the distribution of research funding and scientific performance is a major discussion point in many science policy contexts. Do high shares of funding handed out to a limited number of elite scientists yield the most value for money, or is scientific progress better supported by allocating resources in smaller portions to more teams and individuals? In this review article, we seek to qualify discussions on the benefits and drawbacks of concentrating research funds on fewer individuals and groups. Based on an initial screening of 3,567 articles and a thorough examination of 92 papers, we present a condensation of central arguments. Further, we juxtapose key findings from 20 years of empirical research on the relation between the size of research grants and scientific performance. Overall, the review demonstrates a strong inclination toward arguments in favor of increased dispersal. A substantial body of empirical research also exhibits stagnant or diminishing returns to scale for the relationship between grant size and research performance. The findings question the rationale behind current funding trends and point toward more efficient ways to allocate resources. In

addition, they highlight the need for more research on the interplay between science-internal mechanisms and policy priorities in accelerating concentration of funding.

Abramo, Giovanni; D'Angelo, Ciriaco Andrea; Felici, Giovanni (2020):

**Informed peer review for publication assessments. Are improved impact measures worth the hassle?**

In: *Quantitative Science Studies* 1 (3), S. 1321–1333. DOI: 10.1162/qss\_a\_00051.

*Abstract:*

In this work we ask whether and to what extent applying a predictor of a publication's impact that is better than early citations has an effect on the assessment of the research performance of individual scientists. Specifically, we measure the total impact of Italian professors in the sciences and economics over time, valuing their publications first by early citations and then by a weighted combination of early citations and the impact factor of the hosting journal. As expected, the scores and ranks of the two indicators show a very strong correlation, but significant shifts occur in many fields, mainly in economics and statistics, and mathematics and computer science. The higher the share of uncited professors in a field and the shorter the citation time window, the more recommendable is recourse to the above combination.

Adams, Jonathan; Rogers, Gordon; Smart, Warren; Szomszor, Martin (2020):

**Longitudinal variation in national research publication portfolios. Steps required to index balance and evenness.**

In: *Quantitative Science Studies* 1 (3), S. 1182–1202. DOI: 10.1162/qss\_a\_00073.

*Abstract:*

National research diversity is explored through the balance of global and national papers in journal categories in the Web of Science (WoS) and Essential Science Indicators (ESI) and we examine the consequences of “normalizing” national publication counts against global baselines. Global balance across subject categories became more even as annual WoS indexing grew fourfold between 1981 and 2018, with a relative shift from biomedicine towards environment and technology. Change at the country level may have tracked this or been influenced by local policy and funding. We discuss choice of methods and indices for analysis: WoS categories provide better granularity than ESI; Lorenz curves are explored but found limiting; the Pratt index, Gini coefficient, and Shannon diversity are compared. At the national level, balance generally increases and is greatest in non-Anglophone countries, perhaps due to shifts in language and journal use. Two aspects of national change are revealed: the balance of actual WoS paper counts and the balance of counts normalized against world baseline. The broad patterns for these analyses are similar, but normalized data indicate relatively greater evenness. National patterns link to research capacity and regional networking opportunities, while international collaboration may blend national differences. A data set is provided for analytical use.

Ahlgren, Per; Chen, Yunwei; Colliander, Cristian; van Eck, Nees Jan (2020):

**Enhancing direct citations. A comparison of relatedness measures for community detection in a large set of PubMed publications.**

In: *Quantitative Science Studies* 1 (2), S. 714–729. DOI: 10.1162/qss\_a\_00027.

*Abstract:*

The effects of enhancing direct citations, with respect to publication–publication relatedness measurement, by indirect citation relations (bibliographic coupling, cocitation, and extended direct citations) and text relations on clustering solution accuracy are analyzed. For comparison, we include each approach that is involved in the enhancement of direct citations. In total, we investigate the relative performance of seven approaches. To evaluate the approaches we use a methodology proposed by earlier research. However, the evaluation criterion used is based on MeSH, one of the most sophisticated publication-level classification schemes available. We also introduce an approach, based on interpolated accuracy values, by which overall relative clustering solution accuracy can be studied. The results show that the cocitation approach has the worst performance, and that the direct citations approach is outperformed by the other five investigated approaches. The extended direct citations approach has the best performance, followed by an approach in which direct citations are

enhanced by the BM25 textual relatedness measure. An approach that combines direct citations with bibliographic coupling and cocitation performs slightly better than the bibliographic coupling approach, which in turn has a better performance than the BM25 approach.

Aman, Valeria (2020):

Transfer of knowledge through international scientific mobility. Introduction of a network-based bibliometric approach to study different knowledge types.

In: *Quantitative Science Studies* 1 (2), S. 565–581. DOI: 10.1162/qss\_a\_00028.

**Abstract:**

Although international mobility is associated with various positive outcomes, the process of knowledge transfer resulting from working abroad has not yet been sufficiently investigated. The main reason why the relationship between international mobility and knowledge transfer is still underresearched is that there are not yet reliable methods to identify knowledge transfer. The current study aims to close this research gap by introducing a network-based approach that is capable of indicating knowledge flows. Assuming that coauthorship constitutes one instance through which knowledge transfer can take place, the approach relies on coauthorship networks. In the first approach to be presented, the transfer of published knowledge is operationalized as the use of rarely cited publications. In the second approach, the transfer of methodological know-how is operationalized as the occurrence of lexical terms in abstracts of publications. The study focuses on German scientists who were internationally mobile and acted as knowledge transmitters between the country of mobility and Germany. The results show that the network-based approach is well suited to identifying the sources of knowledge, knowledge transmitters, and the recipients of knowledge. Moreover, the findings suggest that knowledge transfer processes are field specific.

Antonoyiannakis, Manolis (2020):

Impact factor volatility due to a single paper. A comprehensive analysis.

In: *Quantitative Science Studies* 1 (2), S. 639–663. DOI: 10.1162/qss\_a\_00037.

**Abstract:**

We study how a single paper affects the impact factor (IF) of a journal by analyzing data from 3,088,511 papers published in 11639 journals in the 2017 Journal Citation Reports of Clarivate Analytics. We find that IFs are highly volatile. For example, the top-cited paper of 381 journals caused their IF to increase by more than 0.5 points, while for 818 journals the relative increase exceeded 25%. One in 10 journals had their IF boosted by more than 50% by their top three cited papers. Because the single-paper effect on the IF is inversely proportional to journal size, small journals are rewarded much more strongly than large journals for a highly cited paper, while they are penalized more for a low-cited paper, especially if their IF is high. This skewed reward mechanism incentivizes high-IF journals to stay small to remain competitive in rankings. We discuss the implications for breakthrough papers appearing in prestigious journals. We question the reliability of IF rankings given the high IF sensitivity to a few papers that affects thousands of journals.

Armitage, Caroline S.; Lorenz, Marta; Mikki, Susanne (2020):

Mapping scholarly publications related to the Sustainable Development Goals. Do independent bibliometric approaches get the same results?

In: *Quantitative Science Studies* 1 (3), S. 1092–1108. DOI: 10.1162/qss\_a\_00071.

**Abstract:**

Many research and higher education institutions are interested in their contribution to achieving the United Nation's Sustainable Development Goals (SDG). Commercial services from Elsevier and Times Higher Education are addressing this by developing bibliometric queries for measuring SDG-related publications and SDG university rankings. However, such services should be evaluated carefully before use due to the challenging nature of interpreting the SDGs, delimiting relevance, and building queries. The aim of this bibliometric study was to build independent queries to find scholarly publications related to SDG 1, SDG 2, SDG 3, SDG 7, SDG 13, and SDG 14 using a consistent method based on SDG targets

and indicators (the Bergen approach), and compare sets of publications retrieved by the Bergen and Elsevier approaches. Our results show that approach made a large difference, with little overlap in publications retrieved by the two approaches. We further demonstrate that different approaches can alter resulting country rankings. Choice of search terms, how they are combined, and query structure play a role, related to differing interpretations of the SDGs and viewpoints on relevance. Our results suggest that currently available SDG rankings and tools should be used with caution at their current stage of development.

Baas, Jeroen; Schotten, Michiel; Plume, Andrew; Côté, Grégoire; Karimi, Reza (2020):

Scopus as a curated, high-quality bibliometric data source for academic research in quantitative science studies.

[Special Issue: Bibliographic data sources]. In: *Quantitative Science Studies* 1 (1), S. 377–386. DOI: 10.1162/qss\_a\_00019.

*Abstract:*

Scopus is among the largest curated abstract and citation databases, with a wide global and regional coverage of scientific journals, conference proceedings, and books, while ensuring only the highest quality data are indexed through rigorous content selection and re-evaluation by an independent Content Selection and Advisory Board. Additionally, extensive quality assurance processes continuously monitor and improve all data elements in Scopus. Besides enriched metadata records of scientific articles, Scopus offers comprehensive author and institution profiles, obtained from advanced profiling algorithms and manual curation, ensuring high precision and recall. The trustworthiness of Scopus has led to its use as bibliometric data source for large-scale analyses in research assessments, research landscape studies, science policy evaluations, and university rankings. Scopus data have been offered for free for selected studies by the academic research community, such as through application programming interfaces, which have led to many publications employing Scopus data to investigate topics such as researcher mobility, network visualizations, and spatial bibliometrics. In June 2019, the International Center for the Study of Research was launched, with an advisory board consisting of bibliometricians, aiming to work with the scientometric research community and offering a virtual laboratory where researchers will be able to utilize Scopus data.

Baccini, Alberto; Barabesi, Lucio; Khelfaoui, Mahdi; Gingras, Yves (2020):

Intellectual and social similarity among scholarly journals. An exploratory comparison of the networks of editors, authors and co-citations.

In: *Quantitative Science Studies* 1 (1), S. 277–289. DOI: 10.1162/qss\_a\_00006.

*Abstract:*

This paper explores, by using suitable quantitative techniques, to what extent the intellectual proximity among scholarly journals is also proximity in terms of social communities gathered around the journals. Three fields are considered: statistics, economics and information and library sciences. Co-citation networks represent intellectual proximity among journals. The academic communities around the journals are represented by considering the networks of journals generated by authors writing in more than one journal (interlocking authorship: IA), and the networks generated by scholars sitting on the editorial board of more than one journal (interlocking editorship: IE). Dissimilarity matrices are considered to compare the whole structure of the networks. The CC, IE, and IA networks appear to be correlated for the three fields. The strongest correlation is between CC and IA for the three fields. Lower and similar correlations are obtained for CC and IE, and for IE and IA. The CC, IE, and IA networks are then partitioned in communities. Information and library sciences is the field in which communities are more easily detectable, whereas the most difficult field is economics. The degrees of association among the detected communities show that they are not independent. For all the fields, the strongest association is between CC and IA networks; the minimum level of association is between IE and CC. Overall, these results indicate that intellectual proximity is also proximity among authors and among editors of the journals. Thus, the three maps of editorial power, intellectual proximity, and authors communities tell similar stories.

Birkle, Caroline; Pendlebury, David A.; Schnell, Joshua; Adams, Jonathan (2020):

### Web of Science as a data source for research on scientific and scholarly activity.

[Special Issue: Bibliographic data sources]. In: *Quantitative Science Studies* 1 (1), S. 363–376. DOI: 10.1162/qss\_a\_00018.

#### Abstract:

Web of Science (WoS) is the world's oldest, most widely used and authoritative database of research publications and citations. Based on the Science Citation Index, founded by Eugene Garfield in 1964, it has expanded its selective, balanced, and complete coverage of the world's leading research to cover around 34,000 journals today. A wide range of use cases are supported by WoS from daily search and discovery by researchers worldwide through to the supply of analytical data sets and the provision of specialized access to raw data for bibliometric partners. A long- and well-established network of such partners enables the Institute for Scientific Information (ISI) to continue to work closely with bibliometric groups around the world to the benefit of both the community and the services that the company provides to researchers and analysts.

Borgman, Christine L. (2020):

### Whose text, whose mining, and to whose benefit?

[Special Issue: Bridging the divide between qualitative and quantitative science studies]. In: *Quantitative Science Studies* 1 (3), S. 993–1000. DOI: 10.1162/qss\_a\_00053.

#### Abstract:

Scholarly content has become more difficult to find as information retrieval has devolved from bespoke systems that exploit disciplinary ontologies to keyword search on generic search engines. In parallel, more scholarly content is available through open access mechanisms. These trends have failed to converge in ways that would facilitate text data mining, both for information retrieval and as a research method for the quantitative social sciences. Scholarly content has become open to read without becoming open to mine, due both to constraints by publishers and to lack of attention in scholarly communication. The quantity of available text has grown faster than has the quality. Academic dossier systems are among the means to acquire more quality data for mining. Universities, publishers, and private enterprise may be able to mine these data for strategic purposes, however. On the positive front, changes in copyright may allow more data mining. Privacy, intellectual freedom, and access to knowledge are at stake. The next frontier of activism in open access scholarship is control over content for mining as a means to democratize knowledge.

Bornmann, Lutz (2020):

### Bibliometrics-based decision trees (BBDTs) based on bibliometrics-based heuristics (BBHs). Visualized guidelines for the use of bibliometrics in research evaluation.

In: *Quantitative Science Studies* 1 (1), S. 171–182. DOI: 10.1162/qss\_a\_00012.

#### Abstract:

Fast-and-frugal heuristics are simple strategies that base decisions on only a few predictor variables. In so doing, heuristics may not only reduce complexity but also boost the accuracy of decisions, their speed, and transparency. In this paper, bibliometrics-based decision trees (BBDTs) are introduced for research evaluation purposes. BBDTs visualize bibliometrics-based heuristics (BBHs), which are judgment strategies solely using publication and citation data. The BBDT exemplar presented in this paper can be used as guidance to find an answer on the question in which situations simple indicators such as mean citation rates are reasonable and in which situations more elaborated indicators (i.e., [sub-]field-normalized indicators) should be applied.

Bornmann, Lutz (2020):

### How can citation impact in bibliometrics be normalized? A new approach combining citing-side normalization and citation percentiles.

In: *Quantitative Science Studies* 1 (4), S. 1553–1569. DOI: 10.1162/qss\_a\_00089.

*Abstract:*

Since the 1980s, many different methods have been proposed to field-normalize citations. In this study, an approach is introduced that combines two previously introduced methods: citing-side normalization and citation percentiles. The advantage of combining two methods is that their advantages can be integrated in one solution. Based on citing-side normalization, each citation is field weighted and, therefore, contextualized in its field. The most important advantage of citing-side normalization is that it is not necessary to work with a specific field categorization scheme for the normalization procedure. The disadvantages of citing-side normalization—the calculation is complex and the numbers are elusive—can be compensated for by calculating percentiles based on weighted citations that result from citing-side normalization. On the one hand, percentiles are easy to understand: They are the percentage of papers published in the same year with a lower citation impact. On the other hand, weighted citation distributions are skewed distributions with outliers. Percentiles are well suited to assigning the position of a focal paper in such distributions of comparable papers. The new approach of calculating percentiles based on weighted citations is demonstrated in this study on the basis of a citation impact comparison between several countries.

Bornmann, Lutz; Devarakonda, Sitaram; Tekles, Alexander; Chacko, George (2020):

Are disruption index indicators convergently valid? The comparison of several indicator variants with assessments by peers.

In: *Quantitative Science Studies* 1 (3), S. 1242–1259. DOI: 10.1162/qss\_a\_00068.

*Abstract:*

Recently, Wu, Wang, and Evans (2019) proposed a new family of indicators, which measure whether a scientific publication is disruptive to a field or tradition of research. Such disruptive influences are characterized by citations to a focal paper, but not its cited references. In this study, we are interested in the question of convergent validity. We used external criteria of newness to examine convergent validity: In the postpublication peer review system of F1000Prime, experts assess papers whether the reported research fulfills these criteria (e.g., reports new findings). This study is based on 120,179 papers from F1000Prime published between 2000 and 2016. In the first part of the study we discuss the indicators. Based on the insights from the discussion, we propose alternate variants of disruption indicators. In the second part, we investigate the convergent validity of the indicators and the (possibly) improved variants. Although the results of a factor analysis show that the different variants measure similar dimensions, the results of regression analyses reveal that one variant (DI5) performs slightly better than the others.

Bornmann, Lutz; Ganser, Christian; Tekles, Alexander; Leydesdorff, Loet (2020):

Does the  $h\alpha$ -index reinforce the Matthew effect in science? The introduction of agent-based simulations into scientometrics.

In: *Quantitative Science Studies* 1 (1), S. 331–346. DOI: 10.1162/qss\_a\_00008.

*Abstract:*

Recently, Hirsch (2019a) proposed a new variant of the h-index called the  $h\alpha$ -index. The  $h\alpha$ -index was criticized by Leydesdorff, Bornmann, and Opthof (2019). One of their most important points is that the index reinforces the Matthew effect in science. The Matthew effect was defined by Merton (1968) as follows: 'the Matthew effect consists in the accruing of greater increments of recognition for particular scientific contributions to scientists of considerable repute and the withholding of such recognition from scientists who have not yet made their mark' (p. 58). We follow up on the point about the Matthew effect in the current study by using a recently developed Stata command (`h_index`) and R package (`hindex`), which can be used to simulate h-index and  $h\alpha$ -index applications in research evaluation. The user can investigate under which conditions  $h\alpha$  reinforces the Matthew effect. The results of our study confirm what Leydesdorff et al. (2019) expected: The  $h\alpha$ -index reinforces the Matthew effect. This effect can be intensified if strategic behavior of the publishing scientists and cumulative advantage effects are additionally considered in the simulation.

Bowker, Geoffrey C. (2020):

### Numbers or no numbers in science studies.

[Special Issue: Bridging the divide between qualitative and quantitative science studies]. In: *Quantitative Science Studies* 1 (3), S. 927–929. DOI: 10.1162/qss\_a\_00054.

#### Abstract:

This article analyzes my own research trajectory with respect to the qualitative/quantitative divide in science studies and situates my work in the field.

Boyack, Kevin W.; Klavans, Richard (2020):

### A comparison of large-scale science models based on textual, direct citation and hybrid relatedness.

In: *Quantitative Science Studies* 1 (4), S. 1570–1585. DOI: 10.1162/qss\_a\_00085.

#### Abstract:

Recent large-scale bibliometric models have largely been based on direct citation, and several recent studies have explored augmenting direct citation with other citation-based or textual characteristics. In this study we compare clustering results from direct citation, extended direct citation, a textual relatedness measure, and several citation-text hybrid measures using a set of nine million documents. Three different accuracy measures are employed, one based on references in authoritative documents, one using textual relatedness, and the last using document pairs linked by grants. We find that a hybrid relatedness measure based equally on direct citation and PubMed-related article scores gives more accurate clusters (in the aggregate) than the other relatedness measures tested. We also show that the differences in cluster contents between the different models are even larger than the differences in accuracy, suggesting that the textual and citation logics are complementary. Finally, we show that for the hybrid measure based on direct citation and related article scores, the larger clusters are more oriented toward textual relatedness, while the smaller clusters are more oriented toward citation-based relatedness.

Bradley, James; Devarakonda, Sitaram; Davey, Avon; Korobskiy, Dmitriy; Liu, Siyu; Lakhdar-Hamina, Djamil et al. (2020):

### Co-citations in context. Disciplinary heterogeneity is relevant.

In: *Quantitative Science Studies* 1 (1), S. 264–276. DOI: 10.1162/qss\_a\_00007.

#### Abstract:

Citation analysis of the scientific literature has been used to study and define disciplinary boundaries, to trace the dissemination of knowledge, and to estimate impact. Co-citation, the frequency with which pairs of publications are cited, provides insight into how documents relate to each other and across fields. Co-citation analysis has been used to characterize combinations of prior work as conventional or innovative and to derive features of highly cited publications. Given the organization of science into disciplines, a key question is the sensitivity of such analyses to frame of reference. Our study examines this question using semantically themed citation networks. We observe that trends reported to be true across the scientific literature do not hold for focused citation networks, and we conclude that inferring novelty using co-citation analysis and random graph models benefits from disciplinary context.

Cambrosio, Alberto; Cointet, Jean-Philippe; Abdo, Alexandre Hannud (2020):

### Beyond networks. Aligning qualitative and computational science studies.

[Special Issue: Bridging the divide between qualitative and quantitative science studies]. In: *Quantitative Science Studies* 1 (3), S. 1017–1024. DOI: 10.1162/qss\_a\_00055.

#### Abstract:

This article examines the thorny issue of the relationship (or lack thereof) between qualitative and quantitative approaches in Science and Technology Studies (STS). Although quantitative methods, broadly understood, played an important role in the beginnings of STS, these two approaches subsequently strongly diverged, leaving an increasing gap that only a few



scholars have tried to bridge. After providing a short overview of the origins and development of quantitative analyses of textual corpora, we critically examine the state of the art in this domain. Focusing on the availability of advanced network structure analysis tools and Natural Language Processing workflows, we interrogate the fault lines between the increasing offer of computational tools in search of possible uses and the conceptual specifications of STS scholars wishing to explore the epistemic and ontological dimensions of techno-scientific activities. Finally, we point to possible ways to overcome the tension between ethnographic descriptions and quantitative methods while continuing to avoid the dichotomies (social/cognitive, organizing/experimenting) that STS has managed to discard.

Chevalier, Gérard; Chomienne, Christine; Jeanrenaud, Nicolas Guetta; Lane, Julia; Ross, Matthew (2020):

### A new approach for estimating research impact. An application to French cancer research.

In: *Quantitative Science Studies* 1 (4), S. 1586–1600. DOI: 10.1162/qss\_a\_00087.

#### Abstract:

Much attention has been paid to estimating the impact of investments in scientific research. Historically, those efforts have been largely ad hoc, burdensome, and error prone. In addition, the focus has been largely mechanical – drawing a direct line between funding and outputs – rather than focusing on the scientists that do the work. Here, we provide an illustrative application of a new approach that examines the impact of research funding on individuals and their scientific output in terms of publications, citations, collaborations, and international activity, controlling for both observed and unobserved factors. We argue that full engagement between scientific funders and the research community is needed if we are to expand the data infrastructure to enable a more scientific assessment of scientific investments.

Colavizza, Giovanni (2020):

### COVID-19 research in Wikipedia.

In: *Quantitative Science Studies* 1 (4), S. 1349–1380. DOI: 10.1162/qss\_a\_00080.

#### Abstract:

Wikipedia is one of the main sources of free knowledge on the Web. During the first few months of the pandemic, over 5,200 new Wikipedia pages on COVID-19 were created, accumulating over 400 million page views by mid-June 2020.<sup>1</sup> At the same time, an unprecedented amount of scientific articles on COVID-19 and the ongoing pandemic have been published online. Wikipedia's content is based on reliable sources, such as scientific literature. Given its public function, it is crucial for Wikipedia to rely on representative and reliable scientific results, especially in a time of crisis. We assess the coverage of COVID-19-related research in Wikipedia via citations to a corpus of over 160,000 articles. We find that Wikipedia editors are integrating new research at a fast pace, and have cited close to 2% of the COVID-19 literature under consideration. While doing so, they are able to provide a representative coverage of COVID-19-related research. We show that all the main topics discussed in this literature are proportionally represented from Wikipedia, after accounting for article-level effects. We further use regression analyses to model citations from Wikipedia and show that Wikipedia editors on average rely on literature that is highly cited, widely shared on social media, and peer-reviewed.

Costas, Rodrigo; Mongeon, Philippe; Ferreira, Márcia R.; van Honk, Jeroen; Franssen, Thomas (2020):

### Large-scale identification and characterization of scholars on Twitter.

In: *Quantitative Science Studies* 1 (2), S. 771–791. DOI: 10.1162/qss\_a\_00047.

#### Abstract:

This paper presents a new method for identifying scholars who have a Twitter account from bibliometric data from Web of Science (WoS) and Twitter data from Altmeter.com. The method reliably identifies matches between Twitter accounts and scholarly authors. It consists of a matching of elements such as author names, usernames, handles, and URLs, followed by a rule-based scoring system that weights the common occurrence of these elements related to the activities of Twitter users and scholars. The method proceeds by matching the Twitter accounts against a database of millions of disambiguated bibliographic profiles from WoS. This paper describes the implementation and validation of the matching method, and performs verification through precision-recall analysis. We also explore the geographical, disciplinary, and demographic

variations in the distribution of scholars matched to a Twitter account. This approach represents a step forward in the development of more advanced forms of social media studies of science by opening up an important door for studying the interactions between science and social media in general, and for studying the activities of scholars on Twitter in particular.

Crothers, Charles; Bornmann, Lutz; Haunschild, Robin (2020):

Citation concept analysis (CCA) of Robert K. Merton's book *Social Theory and Social Structure*: How often are certain concepts from the book cited in subsequent publications?

In: *Quantitative Science Studies* 1 (2), S. 675–690. DOI: 10.1162/qss\_a\_00029.

**Abstract:**

Citations can be used in evaluative bibliometrics to measure the impact of papers. However, citation analysis can be extended by considering a multidimensional perspective on citation impact which is intended to receive more specific information about the kind of received impact. Bornmann, Wray, and Haunschild (2020) introduced the citation concept analysis (CCA) for capturing the importance and usefulness certain concepts (explained in publications) have in subsequent research. In this paper, we apply the method by investigating the impact various concepts introduced in Robert K. Merton's book *Social Theory and Social Structure* has had. This book was to lay down a manifesto for sociological analysis in the immediate postwar period, and retains a major impact 70 years later. We found that the most cited concepts are "self-fulfilling" and "role" (about 20% of the citation contexts are related to one of these concepts). The concept "self-fulfilling" seems to be important especially in computer sciences and psychology. For "role," this seems to be additionally the case for political sciences. These and further results of the study could demonstrate the high explanatory power of the CCA method.

Devarakonda, Sitaram; Bradley, James R.; Korobskiy, Dmitriy; Warnow, Tandy; Chacko, George (2020):

Frequently cocited publications. Features and kinetics.

In: *Quantitative Science Studies* 1 (3), S. 1223–1241. DOI: 10.1162/qss\_a\_00075.

**Abstract:**

Cocitation measurements can reveal the extent to which a concept representing a novel combination of existing ideas evolves towards a specialty. The strength of cocitation is represented by its frequency, which accumulates over time. Of interest is whether underlying features associated with the strength of cocitation can be identified. We use the proximal citation network for a given pair of articles ( $x$ ,  $y$ ) to compute  $\theta$ , an a priori estimate of the probability of cocitation between  $x$  and  $y$ , prior to their first cocitation. Thus, low values for  $\theta$  reflect pairs of articles for which cocitation is presumed less likely. We observe that cocitation frequencies are a composite of power-law and lognormal distributions, and that very high cocitation frequencies are more likely to be composed of pairs with low values of  $\theta$ , reflecting the impact of a novel combination of ideas. Furthermore, we note that the occurrence of a direct citation between two members of a cocited pair increases with cocitation frequency. Finally, we identify cases of frequently cocited publications that accumulate cocitations after an extended period of dormancy.

Donner, Paul (2020):

A validation of coauthorship credit models with empirical data from the contributions of PhD candidates.

In: *Quantitative Science Studies* 1 (2), S. 551–564. DOI: 10.1162/qss\_a\_00048.

**Abstract:**

A perennial problem in bibliometrics is the appropriate distribution of authorship credit for coauthored publications. Several credit allocation methods and formulas have been introduced, but there has been little empirical validation as to which method best reflects the typical contributions of coauthors. This paper presents a validation of credit allocation methods using a new data set of author-provided percentage contribution figures obtained from the coauthored publications in cumulative PhD theses by authors from three countries that contain contribution statements. The

comparison of allocation schemes shows that harmonic counting performs best and arithmetic and geometric counting also perform well, while fractional counting and first author counting perform relatively poorly.

Donner, Paul; Rimmert, Christine; van Eck, Nees Jan (2020):

Comparing institutional-level bibliometric research performance indicator values based on different affiliation disambiguation systems.

In: *Quantitative Science Studies* 1 (1), S. 150–170. DOI: 10.1162/qss\_a\_00013.

*Abstract:*

The present study is an evaluation of three frequently used institution name disambiguation systems. The Web of Science normalized institution names and Organization Enhanced system and the Scopus Affiliation ID system are tested against a complete, independent institution disambiguation system for a sample of German public sector research organizations. The independent system is used as the gold standard in the evaluations that we perform. We study the coverage of the disambiguation systems and, in particular, the differences in a number of commonly used bibliometric indicators. The key finding is that for the sample institutions, the studied systems provide bibliometric indicator values that have only a limited accuracy. Our conclusion is that for any use with policy implications, additional data cleaning for disambiguating affiliation data is recommended.

Egghe, Leo; Rousseau, Ronald (2020):

h-Type indices, partial sums and the majorization order.

In: *Quantitative Science Studies* 1 (1), S. 320–330. DOI: 10.1162/qss\_a\_00005.

*Abstract:*

We study the array of partial sums,  $PX$ , of a given array  $X$  in terms of its  $h$ -type indices. Concretely, we show that  $h(PX)$  can be described in terms of the Lorenz curve of the array  $X$  and obtain a relation between the sum of the components of  $PX$  and the Gini index of  $X$ . Moreover, we obtain sharp lower and upper bounds for  $h$ -type indices of  $PX$ .

Enkhbayar, Asura; Haustein, Stefanie; Barata, Germana; Alperin, Juan Pablo (2020):

How much research shared on Facebook happens outside of public pages and groups? A comparison of public and private online activity around PLOS ONE papers.

In: *Quantitative Science Studies* 1 (2), S. 749–770. DOI: 10.1162/qss\_a\_00044.

*Abstract:*

Despite its undisputed position as the biggest social media platform, Facebook has never entered the main stage of altmetrics research. In this study, we argue that the lack of attention by altmetrics researchers is due, in part, to the challenges in collecting Facebook data regarding activity that takes place outside of public pages and groups. We present a new method of collecting aggregate counts of shares, reactions, and comments across the platform—including users' personal timelines—and use it to gather data for all articles published between 2015 to 2017 in the journal PLOS ONE. We compare the gathered data with altmetrics collected and aggregated by Altmeter. The results show that 58.7% of papers shared on Facebook happen outside of public spaces and that, when collecting all shares, the volume of activity approximates patterns of engagement previously only observed for Twitter. Both results suggest that the role and impact of Facebook as a medium for science and scholarly communication has been underestimated. Furthermore, they emphasize the importance of openness and transparency around the collection and aggregation of altmetrics.

Fox, Mary Frank (2020):

### Gender, science, and academic rank. Key issues and approaches.

[Special Issue: Bridging the divide between qualitative and quantitative science studies]. In: *Quantitative Science Studies* 1 (3), S. 1001–1006. DOI: 10.1162/qss\_a\_00057.

#### Abstract:

In the social study of science, gender is a critical research site because relations of gender are hierarchical and inequality is a central feature of science. The focus here is on a key dimension of gender and scientific careers: academic rank, particularly that of full professor. This article concentrates on quantitative and qualitative approaches that have occurred in two focal problem areas related to gender, science, and rank: collaboration patterns and evaluative practices. The approaches encompass analyses of large and small groups and comparative cases, with surveys, bibliometrics, experiments, and interviews. This breadth of approaches reflects a search for explanations of the pervasive and persistent relationships between gender and academic rank. The analyses presented here point to the complexities of gender disparities in collaboration. These appear in team compositions, divisions of labor and power dynamics, integration into departmental units, and international coauthorship. The analyses also reveal ways that limited clarity in evaluation bears on gender disparities. Continuing understandings of gender, science, and rank will result in multi level analyses: those at organizational levels along with those of individual scientists.

Fraser, Nicholas; Momeni, Fakhri; Mayr, Philipp; Peters, Isabella (2020):

### The relationship between bioRxiv preprints, citations and altmetrics.

In: *Quantitative Science Studies* 1 (2), S. 618–638. DOI: 10.1162/qss\_a\_00043.

#### Abstract:

A potential motivation for scientists to deposit their scientific work as preprints is to enhance its citation or social impact. In this study we assessed the citation and altmetric advantage of bioRxiv, a preprint server for the biological sciences. We retrieved metadata of all bioRxiv preprints deposited between November 2013 and December 2017, and matched them to articles that were subsequently published in peer-reviewed journals. Citation data from Scopus and altmetric data from Altmetric.com were used to compare citation and online sharing behavior of bioRxiv preprints, their related journal articles, and nondeposited articles published in the same journals. We found that bioRxiv-deposited journal articles had sizably higher citation and altmetric counts compared to nondeposited articles. Regression analysis reveals that this advantage is not explained by multiple explanatory variables related to the articles' publication venues and authorship. Further research will be required to establish whether such an effect is causal in nature. bioRxiv preprints themselves are being directly cited in journal articles, regardless of whether the preprint has subsequently been published in a journal. bioRxiv preprints are also shared widely on Twitter and in blogs, but remain relatively scarce in mainstream media and Wikipedia articles, in comparison to peer-reviewed journal articles.

Frenken, Koen (2020):

### Geography of scientific knowledge. A proximity approach.

[Special Issue: Bridging the divide between qualitative and quantitative science studies]. In: *Quantitative Science Studies* 1 (3), S. 1007–1016. DOI: 10.1162/qss\_a\_00058.

#### Abstract:

Proximity among scientists in social, cognitive, and physical dimensions promotes the sharing of tacit knowledge. Tacit knowledge helps scientists to understand the credibility of papers they read and to use the results in subsequent research. Hence, given the proximity among scientists in social, cognitive, and physical dimensions, one can predict patterns of diffusion in science. However, for controversial knowledge claims to become replicated, one expects the proximity between scientists itself to change as like-minded scientists relocate and create new coalitions. Proximity can thus be used as a unifying concept for the study of scientific knowledge diffusion as well as for the analysis of mobility of scientists.

Harrison, Eliza; Martin, Paige; Surian, Didi; Dunn, Adam G. (2020):

### Recommending research articles to consumers of online vaccination information.

In: *Quantitative Science Studies* 1 (2), S. 810–823. DOI: 10.1162/qss\_a\_00030.

#### Abstract:

Online health communications often provide biased interpretations of evidence and have unreliable links to the source research. We tested the feasibility of a tool for matching web pages to their source evidence. From 207,538 eligible vaccination-related PubMed articles, we evaluated several approaches using 3,573 unique links to web pages from Altmetric. We evaluated methods for ranking the source articles for vaccine-related research described on web pages, comparing simple baseline feature representation and dimensionality reduction approaches to those augmented with canonical correlation analysis (CCA). Performance measures included the median rank of the correct source article; the percentage of web pages for which the source article was correctly ranked first (recall@1); and the percentage ranked within the top 50 candidate articles (recall@50). While augmenting baseline methods using CCA generally improved results, no CCA-based approach outperformed a baseline method, which ranked the correct source article first for over one quarter of web pages and in the top 50 for more than half. Tools to help people identify evidence-based sources for the content they access on vaccination-related web pages are potentially feasible and may support the prevention of bias and misrepresentation of research in news and social media.

Heinisch, Dominik P.; Koenig, Johannes; Otto, Anne (2020):

### A supervised machine learning approach to trace doctorate recipients' employment trajectories.

In: *Quantitative Science Studies* 1 (1), S. 94–116. DOI: 10.1162/qss\_a\_00001.

#### Abstract:

Only scarce information is available on doctorate recipients' career outcomes (BuWiN, 2013). With the current information base, graduate students cannot make an informed decision on whether to start a doctorate or not (Benderly, 2018; Blank et al., 2017). However, administrative labor market data, which could provide the necessary information, are incomplete in this respect. In this paper, we describe the record linkage of two data sets to close this information gap: data on doctorate recipients collected in the catalog of the German National Library (DNB), and the German labor market biographies (IEB) from the German Institute of Employment Research. We use a machine learning-based methodology, which (a) improves the record linkage of data sets without unique identifiers, and (b) evaluates the quality of the record linkage. The machine learning algorithms are trained on a synthetic training and evaluation data set. In an exemplary analysis, we compare the evolution of the employment status of female and male doctorate recipients in Germany.

Heinze, Thomas; Jappe, Arlette (2020):

### Quantitative science studies should be framed with middle-range theories and concepts from the social sciences.

[Special Issue: Bridging the divide between qualitative and quantitative science studies]. In: *Quantitative Science Studies* 1 (3), S. 983–992. DOI: 10.1162/qss\_a\_00059.

#### Abstract:

This paper argues that quantitative science studies should frame their data and analyses with middle-range sociological theories and concepts. We illustrate this argument with reference to the “sociology of professions,” a middle-range theoretical framework developed by Chicago sociologist Andrew Abbott. Using this framework, we counter the claim that the use of bibliometric indicators in research assessment is pervasive in all advanced economies. Rather, our comparison between the Netherlands and Italy reveals major differences in the national design of bibliometric research assessment: The Netherlands follows a model of bibliometric professionalism, whereas Italy follows a centralized bureaucratic model that co-opts academic elites. We conclude that applying the sociology of professions framework to a broader set of countries would be worthwhile, allowing the emerging bibliometric profession to be charted in a comprehensive, and preferably quantitative, fashion. We also briefly discuss other sociological middle-range concepts that could potentially guide empirical analyses in quantitative science studies.

Hendricks, Ginny; Tkaczyk, Dominika; Lin, Jennifer; Feeney, Patricia (2020):

### Crossref. The sustainable source of community-owned scholarly metadata.

[Special Issue: Bibliographic data sources]. In: *Quantitative Science Studies* 1 (1), S. 414–427. DOI: 10.1162/qss\_a\_00022.

#### Abstract:

This paper describes the scholarly metadata collected and made available by Crossref, as well as its importance in the scholarly research ecosystem. Containing over 106 million records and expanding at an average rate of 11% a year, Crossref's metadata has become one of the major sources of scholarly data for publishers, authors, librarians, funders, and researchers. The metadata set consists of 13 content types, including not only traditional types, such as journals and conference papers, but also data sets, reports, preprints, peer reviews, and grants. The metadata is not limited to basic publication metadata, but can also include abstracts and links to full text, funding and license information, citation links, and the information about corrections, updates, retractions, etc. This scale and breadth make Crossref a valuable source for research in scientometrics, including measuring the growth and impact of science and understanding new trends in scholarly communications. The metadata is available through a number of APIs, including REST API and OAI-PMH. In this paper, we describe the kind of metadata that Crossref provides and how it is collected and curated. We also look at Crossref's role in the research ecosystem and trends in metadata curation over the years, including the evolution of its citation data provision. We summarize the research used in Crossref's metadata and describe plans that will improve metadata quality and retrieval in the future.

Héroux-Vaillancourt, Mikaël; Beaudry, Catherine; Rietsch, Constant (2020):

### Using web content analysis to create innovation indicators – What do we really measure?

In: *Quantitative Science Studies* 1 (4), S. 1601–1637. DOI: 10.1162/qss\_a\_00086.

#### Abstract:

This study explores the use of web content analysis to build innovation indicators from the complete texts of 79 corporate websites of Canadian nanotechnology and advanced materials firms. Indicators of four core concepts (R&D, IP protection, collaboration, and external financing) of the innovation process were built using keywords frequency analysis. These web-based indicators were validated using several indicators built from a classic questionnaire-based survey with the following methods: correlation analysis, multitraits multimethods (MTMM) matrices, and confirmatory factor analysis (CFA). The results suggest that formative indices built with the questionnaire and web-based indicators measure the same concept, which is not the case when considering the items from the questionnaire separately. Web-based indicators can act either as complements to direct measures or as substitutes for broader measures, notably the importance of R&D and the importance of IP protection, which are normally measured using conventional methods, such as government administrative data or questionnaire-based surveys.

Herzog, Christian; Hook, Daniel; Konkiel, Stacy (2020):

### Dimensions. Bringing down barriers between scientometricians and data.

[Special Issue: Bibliographic data sources]. In: *Quantitative Science Studies* 1 (1), S. 387–395. DOI: 10.1162/qss\_a\_00020.

#### Abstract:

Until recently, comprehensive scientometrics data has been made available only in siloed, subscription-based tools that are inaccessible to researchers who lack institutional support and resources. As a result of limited data access, research evaluation practices have focused upon basic indicators that only take publications and their citation rates into account. This has blocked innovation on many fronts. Dimensions is a database that links and contextualizes different research information objects. It brings together data describing and linking awarded grants, clinical trials, patents, and policy documents, as well as altmetric information, alongside traditional publications and citations data. This article describes the approach that Digital Science is taking to support the scientometric community, together with the various Dimensions tools available to researchers who wish to use Dimensions data in their research at no cost.

Hicks, Diana; Isett, Kimberley R. (2020):

**Powerful numbers. Exemplary quantitative studies of science that had policy impact.**

[Special Issue: Bridging the divide between qualitative and quantitative science studies]. In: *Quantitative Science Studies* 1 (3), S. 969–982. DOI: 10.1162/qss\_a\_00060.

**Abstract:**

Much scientometric research aims to be relevant to policy, but such research only rarely has a notable policy impact. In this paper, we examine four exemplary cases of policy impact from quantitative studies of science. The cases are analyzed in light of lessons learned about the use of evidence in policy making in health services, which provides very thorough explorations of the problems inherent in policy use of academic research. The analysis highlights key dimensions of the examples, which offer lessons for those aspiring to influence policy with quantitative studies of science.

Horbach, Serge P. J. M. (2020):

**Pandemic publishing. Medical journals strongly speed up their publication process for COVID-19.**

In: *Quantitative Science Studies* 1 (3), S. 1056–1067. DOI: 10.1162/qss\_a\_00076.

**Abstract:**

In times of public crises, including the current COVID-19 pandemic, rapid dissemination of relevant scientific knowledge is of paramount importance. The duration of scholarly journals' publication process is one of the main factors that may hinder quick delivery of new information. Following initiatives of medical journals to accelerate their publication process, this study assesses whether medical journals have managed to speed up their publication process for coronavirus-related articles. It studies the duration of 14 medical journals' publication processes both during and prior to the current pandemic. Assessing 669 articles, the study concludes that medical journals have indeed strongly accelerated their publication process for coronavirus-related articles since the outbreak of the pandemic: The time between submission and publication has decreased on average by 49%. The largest decrease in number of days between submission and publication of articles was due to a decrease in time required for peer review. For articles not related to COVID-19, no acceleration of the publication process is found. While the acceleration of the publication process is laudable from the perspective of quick information dissemination, it also may raise concerns relating to the quality of the peer review process and of the resulting publications.

Horta, Hugo; Santos, João M. (2020):

**The Multidimensional Research Agendas Inventory - Revised (MDRAI-R). Factors shaping researchers' research agendas in all fields of knowledge.**

In: *Quantitative Science Studies* 1 (1), S. 60–93. DOI: 10.1162/qss\_a\_00017.

**Abstract:**

This study creates a novel inventory that characterizes factors influencing the research agendas of researchers in all fields of knowledge: the Multi-dimensional Research Agendas Inventory-Revised (MDRAI-R). The MDRAI-R optimizes an initial inventory designed for the social sciences (the MDRAI) by reducing the number of items per dimension, improving the inventory's psychometric properties, and including new dimensions ("Academia Driven" and "Society Driven") that reflect the greater influence of social and organizational structures on knowledge production and demands for research impact. This inventory enhances our ability to measure research activities at a time when researchers' choices matter more than ever, and it will be of interest to researchers, policy makers, research funding agencies, and university and research organizations.

Huang, Chun-Kai; Neylon, Cameron; Brookes-Kenworthy, Chloe; Hosking, Richard; Montgomery, Lucy; Wilson, Katie; Ozaygen, Alkim (2020):

**Comparison of bibliographic data sources. Implications for the robustness of university rankings.**

In: *Quantitative Science Studies* 1 (2), S. 445–478. DOI: 10.1162/qss\_a\_00031.

*Abstract:*

Universities are increasingly evaluated on the basis of their outputs. These are often converted to simple and contested rankings with substantial implications for recruitment, income, and perceived prestige. Such evaluation usually relies on a single data source to define the set of outputs for a university. However, few studies have explored differences across data sources and their implications for metrics and rankings at the institutional scale. We address this gap by performing detailed bibliographic comparisons between Web of Science (WoS), Scopus, and Microsoft Academic (MSA) at the institutional level and supplement this with a manual analysis of 15 universities. We further construct two simple rankings based on citation count and open access status. Our results show that there are significant differences across databases. These differences contribute to drastic changes in rank positions of universities, which are most prevalent for non-English-speaking universities and those outside the top positions in international university rankings. Overall, MSA has greater coverage than Scopus and WoS, but with less complete affiliation metadata. We suggest that robust evaluation measures need to consider the effect of choice of data sources and recommend an approach where data from multiple sources is integrated to provide a more robust data set.

Kang, Donghyun; Evans, James (2020):

Against method. Exploding the boundary between qualitative and quantitative studies of science.

[Special Issue: Bridging the divide between qualitative and quantitative science studies]. In: *Quantitative Science Studies* 1 (3), S. 930–944. DOI: 10.1162/qss\_a\_00056.

*Abstract:*

Quantitative and qualitative studies of science have historically played radically different roles with opposing epistemological commitments. Using large-scale text analysis, we see that qualitative studies generate and value new theory, especially regarding the complex social and political contexts of scientific action, while quantitative approaches confirm existing theory and evaluate the performance of scientific institutions. Large-scale digital data and emerging computational methods could allow us to refigure these positions, turning qualitative artifacts into quantitative patterns into qualitative insights across many scales, heralding a new era of theory development, engagement, and relevance for scientists, policy-makers, and society.

Kassab, Omar; Bornmann, Lutz; Haunschild, Robin (2020):

Can altmetrics reflect societal impact considerations? Exploring the potential of altmetrics in the context of a sustainability science research center.

In: *Quantitative Science Studies* 1 (2), S. 792–809. DOI: 10.1162/qss\_a\_00032.

*Abstract:*

Societal impact considerations play an increasingly important role in research evaluation. In particular, in the context of publicly funded research, proposal templates commonly include sections to outline strategies for achieving broader impact. Both the assessment of the strategies and the later evaluation of their success are associated with challenges in their own right. Ever since their introduction, altmetrics have been discussed as a remedy for assessing the societal impact of research output. On the basis of data from a research center in Switzerland, this study explores their potential for this purpose. The study is based on the papers (and the corresponding metrics) published by about 200 either accepted or rejected applicants for funding by the Competence Center Environment and Sustainability (CCES). The results of the study seem to indicate that altmetrics are not suitable for reflecting the societal impact of research that was considered: The metrics do not correlate with the ex ante considerations of an expert panel.

Kousha, Kayvan; Thelwall, Mike (2020):

COVID-19 publications. Database coverage, citations, readers, tweets, news, Facebook walls, Reddit posts.

In: *Quantitative Science Studies* 1 (3), S. 1068–1091. DOI: 10.1162/qss\_a\_00066.



*Abstract:*

The COVID-19 pandemic requires a fast response from researchers to help address biological, medical, and public health issues to minimize its impact. In this rapidly evolving context, scholars, professionals, and the public may need to identify important new studies quickly. In response, this paper assesses the coverage of scholarly databases and impact indicators during March 21, 2020 to April 18, 2020. The rapidly increasing volume of research is particularly accessible through Dimensions, and less through Scopus, the Web of Science, and PubMed. Google Scholar's results included many false matches. A few COVID-19 papers from the 21,395 in Dimensions were already highly cited, with substantial news and social media attention. For this topic, in contrast to previous studies, there seems to be a high degree of convergence between articles shared in the social web and citation counts, at least in the short term. In particular, articles that are extensively tweeted on the day first indexed are likely to be highly read and relatively highly cited 3 weeks later. Researchers needing wide scope literature searches (rather than health-focused PubMed or medRxiv searches) should start with Dimensions (or Google Scholar) and can use tweet and Mendeley reader counts as indicators of likely importance.

Kousha, Kayvan; Thelwall, Mike (2020):

Google Books, Scopus, Microsoft Academic, and Mendeley for impact assessment of doctoral dissertations. A multidisciplinary analysis of the UK.

In: *Quantitative Science Studies* 1 (2), S. 479–504. DOI: 10.1162/qss\_a\_00042.

*Abstract:*

A research doctorate normally culminates in publishing a dissertation reporting a substantial body of novel work. In the absence of a suitable citation index, this article explores the relative merits of alternative methods for the large-scale assessment of dissertation impact, using 150,740 UK doctoral dissertations from 2009-2018. Systematic methods for this were designed for Google Books, Scopus, Microsoft Academic, and Mendeley. Fewer than 1 in 8 UK doctoral dissertations had at least one Scopus (12%), Microsoft Academic (11%), or Google Books citation (9%), or at least one Mendeley reader (5%). These percentages varied substantially by subject area and publication year. Google Books citations were more common in the Arts and Humanities (18%), whereas Scopus and Microsoft Academic citations were more numerous in Engineering (24%). In the Social Sciences, Google Books (13%) and Scopus (12%) citations were important and in Medical Sciences, Scopus and Microsoft Academic citations to dissertations were rare (6%). Few dissertations had Mendeley readers (from 3% in Science to 8% in the Social Sciences) and further analysis suggests that Google Scholar finds more citations, but does not report information about all dissertations within a repository and is not a practical tool for large-scale impact assessment.

Madsen, Emil Bargmann; Aagaard, Kaare (2020):

Concentration of Danish research funding on individual researchers and research topics. Patterns and potential drivers.

In: *Quantitative Science Studies* 1 (3), S. 1159–1181. DOI: 10.1162/qss\_a\_00077.

*Abstract:*

The degree of concentration in research funding has long been a principal matter of contention in science policy. Strong concentration has been seen as a tool for optimizing and focusing research investments but also as a damaging path towards hypercompetition, diminished diversity, and conservative topic selection. While several studies have documented funding concentration linked to individual funding organizations, few have looked at funding concentration from a systemic perspective. In this article, we examine nearly 20,000 competitive grants allocated by 15 major Danish research funders. Our results show a strongly skewed allocation of funding towards a small elite of individual researchers, and towards a select group of research areas and topics. We discuss potential drivers and highlight that funding concentration likely results from a complex interplay between funders' overlapping priorities, excellence-dominated evaluation criteria, and lack of coordination between both public and private research funding bodies.

Marres, Noortje; Rijcke, Sarah de (2020):

From indicators to indicating interdisciplinarity. A participatory mapping methodology for research communities in-the-making.

[Special Issue: Bridging the divide between qualitative and quantitative science studies]. In: *Quantitative Science Studies* 1 (3), S. 1041–1055. DOI: 10.1162/qss\_a\_00062.

*Abstract:*

This article discusses a project under development called “Inventing Indicators of Interdisciplinarity,” as an example of work in methodology development that combines quantitative methods with interpretative approaches in social and cultural research. Key to our project is the idea that Science and Technology Indicators not only have representative value, enabling empirical insight into fields of research and innovation but simultaneously have organizing capacity, as their deployment enables the curation of communities of interpretation. We begin with a discussion of concepts and methods for the analysis of interdisciplinarity in Science and Technology Studies (STS) and scientometrics, stressing that both fields recognize that interdisciplinarity is contested. To make possible a constructive exploration of interdisciplinarity as a contested—and transformative—phenomenon, we sketch out a methodological framework for the development and deployment of “engaging indicators.” We characterize this methodology of *indicating* as participatory, abductive, interactive, and informed by design, and emphasize that the method is inherently combinatory, as it brings together approaches from scientometrics, STS, and humanities research. In a final section, we test the potential of our approach in a pilot study of interdisciplinarity in AI, and offer reflections on digital mapping as a pathway towards *indicating* interdisciplinarity.

Meho, Lokman I. (2020):

Highly prestigious international academic awards and their impact on university rankings.

In: *Quantitative Science Studies* 1 (2), S. 824–848. DOI: 10.1162/qss\_a\_00045.

*Abstract:*

This study uses the checklist method, survey studies, and Highly Cited Researchers to identify 100 highly prestigious international academic awards. The study then examines the impact of using these awards on the Academic Ranking of World Universities (the Shanghai Ranking), the QS World University Rankings, and the Times Higher Education World University Rankings. Results show that awards considerably change the rankings and scores of top universities, especially those that receive a large number of awards and those that receive few or no awards. The rankings of all other universities with relatively similar numbers of awards remain intact. If given 20% weight, as was the case in this study, awards help ranking systems set universities further apart from each other, making it easier for users to detect differences in the levels of performance. Adding awards to ranking systems benefits United States universities the most as a result of winning 58% of 1,451 awards given in 2010–2019. Developers of ranking systems should consider adding awards as a variable in assessing the performance of universities. Users of university rankings should pay attention to both ranking positions and scores.

Mihaljević, Helena; Santamaría, Lucía (2020):

Authorship in top-ranked mathematical and physical journals. Role of gender on self-perceptions and bibliographic evidence.

In: *Quantitative Science Studies* 1 (4), S. 1468–1492. DOI: 10.1162/qss\_a\_00090.

*Abstract:*

Despite increasing rates of women researching in math-intensive fields, publications by female authors remain underrepresented. By analyzing millions of records from the dedicated bibliographic databases zbMATH, arXiv, and ADS, we unveil the chronological evolution of authorships by women in mathematics, physics, and astronomy. We observe a pronounced shortage of female authors in top-ranked journals, with quasistagnant figures in various distinguished periodicals in the first two disciplines and a significantly more equitable situation in the latter. Additionally, we provide an interactive open-access web interface to further examine the data. To address whether female scholars submit fewer articles for publication to relevant journals or whether they are consciously or unconsciously disadvantaged by the peer review system, we also study authors' perceptions of their submission practices and analyze around 10,000 responses, collected as part of a recent global survey of scientists. Our analysis indicates that men and women perceive their

submission practices to be similar, with no evidence that a significantly lower number of submissions by women is responsible for their underrepresentation in top-ranked journals. According to the self-reported responses, a larger number of articles submitted to prestigious venues correlates rather with aspects associated with pronounced research activity, a well-established network, and academic seniority.

Milojević, Staša (2020):

**Practical method to reclassify Web of Science articles into unique subject categories and broad disciplines.**

In: *Quantitative Science Studies* 1 (1), S. 183–206. DOI: 10.1162/qss\_a\_00014.

*Abstract:*

Classification of bibliographic items into subjects and disciplines in large databases is essential for many quantitative science studies. The Web of Science classification of journals into approximately 250 subject categories, which has served as a basis for many studies, is known to have some fundamental problems and several practical limitations that may affect the results from such studies. Here we present an easily reproducible method to perform reclassification of the Web of Science into existing subject categories and into 14 broad areas. Our reclassification is at the level of articles, so it preserves disciplinary differences that may exist among individual articles published in the same journal. Reclassification also eliminates ambiguous (multiple) categories that are found for 50% of items and assigns a discipline/field category to all articles that come from broad-coverage journals such as *Nature* and *Science*. The correctness of the assigned subject categories is evaluated manually and is found to be ~95%.

Nelhans, Gustaf; Bodin, Theo (2020):

**Methodological considerations for identifying questionable publishing in a national context. The case of Swedish Higher Education Institutions.**

In: *Quantitative Science Studies* 1 (2), S. 505–524. DOI: 10.1162/qss\_a\_00033.

*Abstract:*

The overall scope of this study is an attempt at a methodological framework for matching publication lists at the national level against a combined set of blacklists for questionable publishing. Using the total verified set of publications from Swedish Higher Education Institutions (HEI) as a case, we examined the number, distribution, and proportion of publishing in questionable journals at the national level. Journal publication data was extracted from the national SwePub database and matched against three curated blacklists of questionable publishing. For the period 2012–2017, we identified 1,743 published papers in blacklisted journals, equal to an average of 0.5–0.9% of the total publications from Swedish HEIs. There was high variability between different HEI categories, with more established universities at the lower end of the spectrum, while university colleges and new universities had a much higher proportion (~2%). There was a general decreasing trend during the study period ( $p = 0.83$ ) for all categories of HEIs. The study presents a methodology to identify questionable publishing in academia that could be applied to other countries with similar infrastructure. Thus, it could serve as a starting point for the development of a general framework for cross-national quantitative estimation of questionable publishing.

Olejniczak, Anthony J.; Wilson, Molly J. (2020):

**Who's writing open access (OA) articles? Characteristics of OA authors at Ph.D.-granting institutions in the United States.**

In: *Quantitative Science Studies* 1 (4), S. 1429–1450. DOI: 10.1162/qss\_a\_00091.

*Abstract:*

The open access (OA) publication movement aims to present research literature to the public at no cost and with no restrictions. While the democratization of access to scholarly literature is a primary focus of the movement, it remains unclear whether OA has uniformly democratized the corpus of freely available research, or whether authors who choose to publish in OA venues represent a particular subset of scholars—those with access to resources enabling them to afford article processing charges (APCs). We investigated the number of OA articles with article processing charges (APC OA)

authored by 182,320 scholars with known demographic and institutional characteristics at American research universities across 11 broad fields of study. The results show, in general, that the likelihood for a scholar to author an APC OA article increases with male gender, employment at a prestigious institution (AAU member universities), association with a STEM discipline, greater federal research funding, and more advanced career stage (i.e., higher professorial rank). Participation in APC OA publishing appears to be skewed toward scholars with greater access to resources and job security.

Paul-Hus, Adèle; Mongeon, Philippe; Sainte-Marie, Maxime; Larivière, Vincent (2020):

### Who are the acknowledgees? An analysis of gender and academic status.

In: *Quantitative Science Studies* 1 (2), S. 582–598. DOI: 10.1162/qss\_a\_00036.

#### Abstract:

Acknowledgements found in scholarly papers allow for credit attribution of nonauthor contributors. As such, they are associated with a different kind of recognition than authorship. While several studies have shown that social factors affect authorship and citation practices, few analyses have been performed on acknowledgements. Based on 878,250 acknowledgees mentioned in 291,167 papers published between 2015 and 2017, this study analyzes the gender and academic status of individuals named in the acknowledgements of scientific papers. Our results show that gender disparities generally found in authorship can be extended to acknowledgements, and that women are even more underrepresented in acknowledgements section than in authors' lists. Our findings also show that women acknowledge proportionally more women than men do. Regarding academic status, our results show that acknowledgees who have already published tend to have a higher position in the academic hierarchy compared with all Web of Science (WoS) authors. Taken together, these findings suggest that acknowledgement practices might be associated with academic status and gender.

Peroni, Silvio; Shotton, David (2020):

### OpenCitations, an infrastructure organization for open scholarship.

[Special Issue: Bibliographic data sources]. In: *Quantitative Science Studies* 1 (1), S. 428–444. DOI: 10.1162/qss\_a\_00023.

#### Abstract:

OpenCitations is an infrastructure organization for open scholarship dedicated to the publication of open citation data as Linked Open Data using Semantic Web technologies, thereby providing a disruptive alternative to traditional proprietary citation indexes. Open citation data are valuable for bibliometric analysis, increasing the reproducibility of large-scale analyses by enabling publication of the source data. Following brief introductions to the development and benefits of open scholarship and to Semantic Web technologies, this paper describes OpenCitations and its data sets, tools, services, and activities. These include the OpenCitations Data Model; the SPAR (Semantic Publishing and Referencing) Ontologies; OpenCitations' open software of generic applicability for searching, browsing, and providing REST APIs over resource description framework (RDF) triplestores; Open Citation Identifiers (OCIs) and the OpenCitations OCI Resolution Service; the OpenCitations Corpus (OCC), a database of open downloadable bibliographic and citation data made available in RDF under a Creative Commons public domain dedication; and the OpenCitations Indexes of open citation data, of which the first and largest is COCI, the OpenCitations Index of Crossref Open DOI-to-DOI Citations, which currently contains over 624 million bibliographic citations and is receiving considerable usage by the scholarly community.

Pölonen, Janne; Laakso, Mikael; Guns, Raf; Kulczycki, Emanuel; Sivertsen, Gunnar (2020):

### Open access at the national level. A comprehensive analysis of publications by Finnish researchers.

In: *Quantitative Science Studies* 1 (4), S. 1396–1428. DOI: 10.1162/qss\_a\_00084.

#### Abstract:

Open access (OA) has mostly been studied by relying on publication data from selective international databases, notably Web of Science (WoS) and Scopus. The aim of our study is to show that it is possible to achieve a national estimate of the number and share of OA based on institutional publication data providing a comprehensive coverage of the peer-reviewed outputs across fields, publication types, and languages. Our data consists of 48,177 journal, conference, and book

publications from 14 Finnish universities in 2016–2017, including information about OA status, as self-reported by researchers and validated by data-collection personnel through their Current Research Information System (CRIS). We investigate the WoS, Scopus, and DOI coverage, as well as the share of OA outputs between different fields, publication types, languages, OA mechanisms (gold, hybrid, and green), and OA information sources (DOAJ, Bielefeld list, and Sherpa/Romeo). We also estimate the role of the largest international commercial publishers compared to the not-for-profit Finnish national publishers of journals and books. We conclude that institutional data, integrated at national and international level, provides one of the building blocks of a large-scale data infrastructure needed for comprehensive assessment and monitoring of OA across countries, for example at the European level.

Rabosio, Emanuele; Righetto, Lorenzo; Spelta, Alessandro; Pammolli, Fabio (2020):

**Connected from the outside. The role of U.S. regions in promoting the integration of the European research system.**

In: *Quantitative Science Studies* 1 (2), S. 894–917. DOI: 10.1162/qss\_a\_00034.

*Abstract:*

Considerable efforts have been deployed by the European Union to create an integrated Research & Development area. In this paper, we focus on the structure and evolution of the European collaboration network as reflected by patent data. We study patent networks representing collaborations between inventors located in different geographic areas. Existing studies seem to indicate an increasing integration of the European research system, but none of them has investigated which regions contribute most to this integration. We analyze the patent coinventorship network to measure network-based distances between regions through multiple metrics, in order to evaluate the role of different areas for the integration of the EU R&D system. We study changes of the average closeness between European regions belonging to different countries. In particular, we perform a counterfactual exercise, simulating the impact on EU integration of the removal of countries and individual regions. Our findings reveal an important contribution from U.S. regions in favoring EU integration. In particular, the size and the density of the U.S. system, together with the presence of a few regional hubs, play a key role in reducing the distances between European regions.

Rodríguez-Navarro, Alonso; Brito, Ricardo (2020):

**Might Europe one day again be a global scientific powerhouse? Analysis of ERC publications suggests it will not be possible without changes in research policy.**

In: *Quantitative Science Studies* 1 (2), S. 872–893. DOI: 10.1162/qss\_a\_00039.

*Abstract:*

Numerous EU documents praise the excellence of EU research without empirical evidence and in contradiction of academic studies. We investigated research performance in two fields of high socioeconomic importance, advanced technology and basic medical research, in two sets of European countries, Germany, France, Italy, and Spain (GFIS), and the UK, The Netherlands, and Switzerland (UKNCH). Despite their historical and geographical proximity, research performance in GFIS is much lower than in UKNCH, and well below the world average. Funding from the European Research Council (ERC) greatly improves performance in both GFIS and UKNCH, but ERC-GFIS publications are less cited than ERC-UKNCH publications. We conclude that research performance in GFIS and in other EU countries is intrinsically low, even in highly selected and generously funded projects. The technological and economic future of the EU depends on improving research, which requires structural changes in research policy within the EU, and in most EU countries.

Sainte-Marie, Maxime; Mongeon, Philippe; Larivière, Vincent (2020):

**On the topicality and research impact of special issues.**

In: *Quantitative Science Studies* 1 (1), S. 303–319. DOI: 10.1162/qss\_a\_00009.

*Abstract:*

The publication of special issues constitute an important yet underinvestigated phenomenon of scholarly communication. In an attempt to draw attention to the proliferation of special issues, Priem (2006) suggested that their commissioning has

an underestimated opportunity cost, given the relative scarcity of publication space: by distorting the "marketplace for ideas" through the commanding of preselected topical distributions, special issues undermine the total research output by "squeezing out" high-quality but topically unrelated articles. The present paper attempts to test this hypothesis by providing a topicality and research impact analysis of conference-based, monographic, and regular issues published between 2010 and 2015 inclusive and indexed in Clarivate Analytics' Web of Science. The results show that the titles and abstracts of articles copublished are topically closer to each other than those copublished in regular issues, which suggests that their relative importance might influence the total topical distribution. However, disciplinary and overall comparison of relative citations for both special and regular issues shows that intraissue averages and variances in the former case are respectively higher and lower than in the regular issue context, which undermines not only the abovementioned hypothesis, but also the belief that editors often "fill up" special issues by accepting substandard papers.

Schönfelder, Nina (2020):

Article processing charges. Mirroring the citation impact or legacy of the subscription-based model?

In: *Quantitative Science Studies* 1 (1), S. 6–27. DOI: 10.1162/qss\_a\_00015.

*Abstract:*

With the ongoing open-access transformation, article processing charges (APCs) are gaining importance as one of the main business models for open-access publishing in scientific journals. This paper analyzes how much of APC pricing can be attributed to journal-related factors. With UK data from OpenAPC (which aggregates fees paid for open-access articles by universities, funders, and research institutions), APCs are explained by the following variables: (a) the "source normalized impact per paper" (SNIP), (b) whether the journal is open access or hybrid, (c) the publisher of the journal, (d) the subject area of the journal, and (e) the year. The results of the multivariate linear regression show that the journal's impact and hybrid status are the most important factors for the level of APCs. However, the relationship between APC and SNIP is different for open-access journals and hybrid journals. APCs paid to open-access journals were found to be strongly increasing in conjunction with higher journal citation impact, whereas this relationship was observed to be much looser for articles in hybrid journals. This paper goes beyond simple statistics, which have been discussed so far in the literature, by using control variables and applying statistical inference.

Selten, Friso; Neylon, Cameron; Huang, Chun-Kai; Groth, Paul (2020):

A longitudinal analysis of university rankings.

In: *Quantitative Science Studies* 1 (3), S. 1109–1135. DOI: 10.1162/qss\_a\_00052.

*Abstract:*

Pressured by globalization and demand for public organizations to be accountable, efficient, and transparent, university rankings have become an important tool for assessing the quality of higher education institutions. It is therefore important to assess exactly what these rankings measure. Here, the three major global university rankings—the Academic Ranking of World Universities, the Times Higher Education ranking and the Quacquarelli Symonds World University Rankings—are studied. After a description of the ranking methodologies, it is shown that university rankings are stable over time but that there is variation between the three rankings. Furthermore, using principal component analysis and exploratory factor analysis, we demonstrate that the variables used to construct the rankings primarily measure two underlying factors: a university's reputation and its research performance. By correlating these factors and plotting regional aggregates of universities on the two factors, differences between the rankings are made visible. Last, we elaborate how the results from these analysis can be viewed in light of often-voiced critiques of the ranking process. This indicates that the variables used by the rankings might not capture the concepts they claim to measure. The study provides evidence of the ambiguous nature of university rankings quantification of university performance.

Siler, Kyle; Frenken, Koen (2020):

The pricing of open access journals. Diverse niches and sources of value in academic publishing.

In: *Quantitative Science Studies* 1 (1), S. 28–59. DOI: 10.1162/qss\_a\_00016.

*Abstract:*

Open access (OA) publishing has created new academic and economic niches in contemporary science. OA journals offer numerous publication outlets with varying editorial philosophies and business models. This article analyzes the Directory of Open Access Journals (DOAJ) ( $n = 12,127$ ) to identify characteristics of OA academic journals related to the adoption of article processing charge (APC)-based business models, as well as the price points of journals that charge APCs. Journal impact factor (JIF), language, publisher mission, DOAJ Seal, economic and geographic regions of publishers, peer review duration, and journal discipline are all significantly related to the adoption and pricing of journal APCs. Even after accounting for other journal characteristics (prestige, discipline, publisher country), journals published by for-profit publishers charge the highest APCs. Journals with status endowments (JIF, DOAJ Seal) and articles written in English, published in wealthier regions, and in medical or science-based disciplines are also relatively costlier. The OA publishing market reveals insights into forces that create economic and academic value in contemporary science. Political and institutional inequalities manifest in the varying niches occupied by different OA journals and publishers.

Silva, Filipi Nascimento; Tandon, Aditya; Amancio, Diego Raphael; Flammini, Alessandro; Menczer, Filippo; Milojević, Staša; Fortunato, Santo (2020):

### Recency predicts bursts in the evolution of author citations.

In: *Quantitative Science Studies* 1 (3), S. 1298–1308. DOI: 10.1162/qss\_a\_00070.

*Abstract:*

The citations process for scientific papers has been studied extensively. But while the citations accrued by authors are the sum of the citations of their papers, translating the dynamics of citation accumulation from the paper to the author level is not trivial. Here we conduct a systematic study of the evolution of author citations, and in particular their bursty dynamics. We find empirical evidence of a correlation between the number of citations most recently accrued by an author and the number of citations they receive in the future. Using a simple model where the probability for an author to receive new citations depends only on the number of citations collected in the previous 12–24 months, we are able to reproduce both the citation and burst size distributions of authors across multiple decades.

Sjögårde, Peter; Ahlgren, Per (2020):

### Granularity of algorithmically constructed publication-level classifications of research publications. Identification of specialties.

In: *Quantitative Science Studies* 1 (1), S. 207–238. DOI: 10.1162/qss\_a\_00004.

*Abstract:*

In this work, we build on and use the outcome of an earlier study on topic identification in an algorithmically constructed publication-level classification (ACPLC), and address the issue of how to algorithmically obtain a classification of topics (containing articles), where the classes of the classification correspond to specialties. The methodology we propose, which is similar to that used in the earlier study, uses journals and their articles to construct a baseline classification. The underlying assumption of our approach is that journals of a particular size and focus have a scope that corresponds to specialties. By measuring the similarity between (1) the baseline classification and (2) multiple classifications obtained by topic clustering and using different values of a resolution parameter, we have identified a best performing ACPLC. In two case studies, we could identify the subject foci of the specialties involved, and the subject foci of specialties were relatively easy to distinguish. Further, the class size variation regarding the best performing ACPLC is moderate, and only a small proportion of the articles belong to very small classes. For these reasons, we conclude that the proposed methodology is suitable for determining the specialty granularity level of an ACPLC.

Small, Henry (2020):

### Past as prologue. Approaches to the study of confirmation in science.

[Special Issue: Bridging the divide between qualitative and quantitative science studies]. In: *Quantitative Science Studies* 1 (3), S. 1025–1040. DOI: 10.1162/qss\_a\_00063.

*Abstract:*

In the 1970s, quantitative science studies were being pursued by sociologists, historians, and information scientists. Philosophers were part of this discussion, but their role would diminish as sociology of science asserted itself. An antiscience bias within the sociology of science became evident in the late 1970s, which split the science studies community, notably causing the “citationists” to go their own way. The main point of contention was whether science was a rational, evidence-based activity. To reverse the antiscience trend, it will be necessary to revive philosophical models of science, such as Bayesian confirmation theory or explanatory coherence models, where theory-experiment agreement plays a decisive role. A case study from the history of science is used to illustrate these models, and bibliometric and text-based methods are proposed as a source of data to test these models.

Stage, Andreas Kjær; Aagaard, Kaare (2020):

National policies as drivers of organizational change in universities. A string of reinforcing reforms.

In: *Quantitative Science Studies* 1 (2), S. 849–871. DOI: 10.1162/qss\_a\_00046.

*Abstract:*

Since the turn of the millennium, the Danish university sector has been one of the most intensely reformed in Europe. In parallel, the staff composition of Danish Universities has also changed more than the corresponding compositions in other Western countries. But how direct is the link between the policy reforms and the staff changes? While we expect national policy reforms to have influence on organizational change in universities, we also know that the content and impact of policies are often shaped and modified by global trends as well as local path dependencies. To shed light on this question, this article examines the impact of four major reforms on the staff composition of Danish universities by interpreting long-term staff data at multiple levels. Contrary to the notions of change resistance and path dependency, the empirical analysis suggests that a consistent string of policy reforms has had a profound impact on the Danish universities. However, the analysis also shows that the links between national reforms and actual changes are seldom immediate and straightforward and that the local, national, and global levels interact. In doing so they often appear to reinforce the influence of each other.

Tekles, Alexander; Bornmann, Lutz (2020):

Author name disambiguation of bibliometric data. A comparison of several unsupervised approaches.

In: *Quantitative Science Studies* 1 (4), S. 1510–1528. DOI: 10.1162/qss\_a\_00081.

*Abstract:*

Adequately disambiguating author names in bibliometric databases is a precondition for conducting reliable analyses at the author level. In the case of bibliometric studies that include many researchers, it is not possible to disambiguate each single researcher manually. Several approaches have been proposed for author name disambiguation, but there has not yet been a comparison of them under controlled conditions. In this study, we compare a set of unsupervised disambiguation approaches. Unsupervised approaches specify a model to assess the similarity of author mentions a priori instead of training a model with labeled data. To evaluate the approaches, we applied them to a set of author mentions annotated with a ResearcherID, this being an author identifier maintained by the researchers themselves. Apart from comparing the overall performance, we take a more detailed look at the role of the parametrization of the approaches and analyze the dependence of the results on the complexity of the disambiguation task. Furthermore, we examine which effects the differences in the set of metadata considered by the different approaches have on the disambiguation results. In the context of this study, the approach proposed by Caron and van Eck (2014) produced the best results.

Thelwall, Mike (2020):

Coronavirus research before 2020 is more relevant than ever, especially when interpreted for COVID-19.

In: *Quantitative Science Studies* 1 (4), S. 1381–1395. DOI: 10.1162/qss\_a\_00083.



*Abstract:*

The speed with which biomedical specialists were able to identify and characterize COVID-19 was partly due to prior research with other coronaviruses. Early epidemiological comparisons with Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS), also made it easier to predict COVID-19's likely spread and lethality. This article assesses whether academic interest in prior coronavirus research has translated into interest in the primary source material, using Mendeley reader counts for early academic impact evidence. The results confirm that SARS and MERS research in 2008–2017 experienced anomalously high increases in Mendeley readers in April–May 2020. Nevertheless, studies learning COVID-19 lessons from SARS and MERS or using them as a benchmark for COVID-19 have generated much more academic interest than primary studies of SARS or MERS. Thus, research that interprets prior relevant research for new diseases when they are discovered seems to be particularly important to help researchers to understand its implications in the new context.

Thelwall, Mike (2020):

### Gender differences in citation impact for 27 fields and six English-speaking countries 1996–2014.

In: *Quantitative Science Studies* 1 (2), S. 599–617. DOI: 10.1162/qss\_a\_00038.

*Abstract:*

Initiatives addressing the lack of women in many academic fields, and the general lack of senior women, need to be informed about the causes of any gender differences that may affect career progression, including citation impact. Previous research about gender differences in journal article citation impact has found the direction of any difference to vary by country and field, but has usually avoided discussions of the magnitude and wider significance of any differences and has not been systematic in terms of fields and/or time. This study investigates differences in citation impact between male and female first-authored research for 27 broad fields and six large English-speaking countries (Australia, Canada, Ireland, New Zealand, the UK, and the USA) from 1996 to 2014. The results show an overall female first author citation advantage, although in most broad fields it is reversed in all countries for some years. International differences include Medicine having a female first author citation advantage for all years in Australia, but a male citation advantage for most years in Canada. There was no general trend for the gender difference to increase or decrease over time. The average effect size is small, however, and unlikely to have a substantial influence on overall gender differences in researcher careers.

Thelwall, Mike (2020):

### Large publishing consortia produce higher citation impact research but coauthor contributions are hard to evaluate.

In: *Quantitative Science Studies* 1 (1), S. 290–302. DOI: 10.1162/qss\_a\_00003.

*Abstract:*

This paper introduces a simple agglomerative clustering method to identify large publishing consortia with at least 20 authors and 80% shared authorship between articles. Based on Scopus journal articles from 1996–2018, under these criteria, nearly all (88%) of the large consortia published research with citation impact above the world average, with the exceptions being mainly the newer consortia, for which average citation counts are unreliable. On average, consortium research had almost double (1.95) the world average citation impact on the log scale used (Mean Normalised Log Citation Score). At least partial alphabetical author ordering was the norm in most consortia. The 250 largest consortia were for nuclear physics and astronomy, involving expensive equipment, and for predominantly health-related issues in genomics, medicine, public health, microbiology and neuropsychology. For the health-related issues, except for the first and last few authors, authorship seem to primarily indicate contributions to the shared project infrastructure necessary to gather the raw data. It is impossible for research evaluators to identify the contributions of individual authors in the huge alphabetical consortia of physics and astronomy and problematic for the middle and end authors of health-related consortia. For small-scale evaluations, authorship contribution statements could be used when available.

Thelwall, Mike (2020):

### Mendeley reader counts for US computer science conference papers and journal articles.

In: *Quantitative Science Studies* 1 (1), S. 347–359. DOI: 10.1162/qss\_a\_00010.

#### Abstract:

Although bibliometrics are normally applied to journal articles when used to support research evaluations, conference papers are at least as important in fast-moving computing-related fields. It is therefore important to assess the relative advantages of citations and altmetrics for computing conference papers to make an informed decision about which, if any, to use. This paper compares Scopus citations with Mendeley reader counts for conference papers and journal articles that were published between 1996 and 2018 in 11 computing fields and that had at least one US author. The data showed high correlations between Scopus citation counts and Mendeley reader counts in all fields and most years, but with few Mendeley readers for older conference papers and few Scopus citations for new conference papers and journal articles. The results therefore suggest that Mendeley reader counts have a substantial advantage over citation counts for recently published conference papers due to their greater speed, but are unsuitable for older conference papers.

Thelwall, Mike (2020):

### Pot, kettle. Nonliteral titles aren't (natural) science.

In: *Quantitative Science Studies* 1 (4), S. 1638–1652. DOI: 10.1162/qss\_a\_00078.

#### Abstract:

Researchers may be tempted to attract attention through poetic titles for their publications, but would this be mistaken in some fields? Although poetic titles are known to be common in medicine, it is not clear whether the practice is widespread elsewhere. This article investigates the prevalence of poetic expressions in journal article titles from 1996–2019 in 3.3 million articles from all 27 Scopus broad fields. Expressions were identified by manually checking all phrases with at least five words that occurred at least 25 times, finding 149 stock phrases, idioms, sayings, literary allusions, film names, and song titles or lyrics. The expressions found are most common in the social sciences and the humanities. They are also relatively common in medicine, but almost absent from engineering and the natural and formal sciences. The differences may reflect the less hierarchical and more varied nature of the social sciences and humanities, where interesting titles may attract an audience. In engineering, natural science, and formal science fields, authors should take extra care with poetic expressions in case their choice is judged inappropriate. This includes interdisciplinary research overlapping these areas. Conversely, reviewers of interdisciplinary research involving the social sciences should be more tolerant of poetic license.

Thelwall, Mike; Fairclough, Ruth (2020):

### All downhill from the PhD? The typical impact trajectory of U.S. academic careers.

In: *Quantitative Science Studies* 1 (3), S. 1334–1348. DOI: 10.1162/qss\_a\_00072.

#### Abstract:

Within academia, mature researchers tend to be more senior, but do they also tend to write higher impact articles? This article assesses long-term publishing (16+ years) United States (U.S.) researchers, contrasting them with shorter-term publishing researchers (1, 6, or 10 years). A long-term U.S. researcher is operationalized as having a first Scopus-indexed journal article in exactly 2001 and one in 2016–2019, with U.S. main affiliations in their first and last articles. Researchers publishing in large teams (11+ authors) were excluded. The average field and year normalized citation impact of long- and shorter-term U.S. researchers' journal articles decreases over time relative to the national average, with especially large falls for the last articles published, which may be at least partly due to a decline in self-citations. In many cases researchers start by publishing above U.S. average citation impact research and end by publishing below U.S. average citation impact research. Thus, research managers should not assume that senior researchers will usually write the highest impact papers.

Thelwall, Mike; Mas-Bleda, Amalia (2020):

A gender equality paradox in academic publishing. Countries with a higher proportion of female first-authored journal articles have larger first-author gender disparities between fields.

In: *Quantitative Science Studies* 1 (3), S. 1260–1282. DOI: 10.1162/qss\_a\_00050.

*Abstract:*

Current attempts to address the shortfall of female researchers in science, technology, engineering, and mathematics (STEM) have not yet succeeded, despite other academic subjects having female majorities. This article investigates the extent to which gender disparities are subject-wide or nation-specific by a first-author gender comparison of 30 million articles from all 27 Scopus broad fields within the 31 countries with the most Scopus-indexed articles 2014–2018. The results show overall and geocultural patterns as well as individual national differences. Almost half of the subjects were always more male (seven; e.g., Mathematics) or always more female (six; e.g., Immunology & Microbiology) than the national average. A strong overall trend (Spearman correlation 0.546) is for countries with a higher proportion of female first-authored research to also have larger differences in gender disparities between fields (correlation 0.314 for gender ratios). This confirms the international gender equality paradox previously found for degree subject choices: Increased gender equality overall associates with moderately greater gender differentiation between subjects. This is consistent with previous United States-based claims that gender differences in academic careers are partly due to (socially constrained) gender differences in personal preferences. Radical solutions may therefore be needed for some STEM subjects to overcome gender disparities.

Thelwall, Mike; Mas-Bleda, Amalia (2020):

How common are explicit research questions in journal articles?

In: *Quantitative Science Studies* 1 (2), S. 730–748. DOI: 10.1162/qss\_a\_00041.

*Abstract:*

Although explicitly labeled research questions seem to be central to some fields, others do not need them. This may confuse authors, editors, readers, and reviewers of multidisciplinary research. This article assesses the extent to which research questions are explicitly mentioned in 17 out of 22 areas of scholarship from 2000 to 2018 by searching over a million full-text open access journal articles. Research questions were almost never explicitly mentioned (under 2%) by articles in engineering and physical, life, and medical sciences, and were the exception (always under 20%) for the broad fields in which they were least rare: computing, philosophy, theology, and social sciences. Nevertheless, research questions were increasingly mentioned explicitly in all fields investigated, despite a rate of 1.8% overall (1.1% after correcting for irrelevant matches). Other terminology for an article's purpose may be more widely used instead, including aims, objectives, goals, hypotheses, and purposes, although no terminology occurs in a majority of articles in any broad field tested. Authors, editors, readers, and reviewers should therefore be aware that the use of explicitly labeled research questions or other explicit research purpose terminology is nonstandard in most or all broad fields, although it is becoming less rare.

Thelwall, Mike; Sud, Pardeep (2020):

Greater female first author citation advantages do not associate with reduced or reducing gender disparities in academia.

In: *Quantitative Science Studies* 1 (3), S. 1283–1297. DOI: 10.1162/qss\_a\_00069.

*Abstract:*

Ongoing problems attracting women into many Science, Technology, Engineering and Mathematics (STEM) subjects have many potential explanations. This article investigates whether the possible undercitation of women associates with lower proportions of, or increases in, women in a subject. It uses six million articles published in 1996–2012 across up to 331 fields in six mainly English-speaking countries: Australia, Canada, Ireland, New Zealand, the United Kingdom and the United States. The proportion of female first- and last-authored articles in each year was calculated and 4,968 regressions were run to detect first-author gender advantages in field normalized article citations. The proportion of female first authors in each field correlated highly between countries and the female first-author citation advantages derived from the regressions correlated moderately to strongly between countries, so both are relatively field specific. There was a weak tendency in the United States and New Zealand for female citation advantages to be stronger in fields with fewer women, after excluding

small fields, but there was no other association evidence. There was no evidence of female citation advantages or disadvantages to be a cause or effect of changes in the proportions of women in a field for any country. Inappropriate uses of career-level citations are a likelier source of gender inequities.

van Bevern, René; Komusiewicz, Christian; Molter, Hendrik; Niedermeier, Rolf; Sorge, Manuel; Walsh, Toby (2020):

### h-Index manipulation by undoing merges.

In: *Quantitative Science Studies* 1 (4), S. 1529–1552. DOI: 10.1162/qss\_a\_00093.

#### Abstract:

The h-index is an important bibliographic measure used to assess the performance of researchers. Dutiful researchers merge different versions of their articles in their Google Scholar profile even though this can decrease their h-index. In this article, we study the manipulation of the h-index by undoing such merges. In contrast to manipulation by merging articles, such manipulation is harder to detect. We present numerous results on computational complexity (from linear-time algorithms to parameterized computational hardness results) and empirically indicate that at least small improvements of the h-index by splitting merged articles are unfortunately easily achievable.

Waltman, Ludo; Boyack, Kevin W.; Colavizza, Giovanni; van Eck, Nees Jan (2020):

### A principled methodology for comparing relatedness measures for clustering publications.

In: *Quantitative Science Studies* 1 (2), S. 691–713. DOI: 10.1162/qss\_a\_00035.

#### Abstract:

There are many different relatedness measures, based for instance on citation relations or textual similarity, that can be used to cluster scientific publications. We propose a principled methodology for evaluating the accuracy of clustering solutions obtained using these relatedness measures. We formally show that the proposed methodology has an important consistency property. The empirical analyses that we present are based on publications in the fields of cell biology, condensed matter physics, and economics. Using the BM25 text-based relatedness measure as the evaluation criterion, we find that bibliographic coupling relations yield more accurate clustering solutions than direct citation relations and cocitation relations. The so-called extended direct citation approach performs similarly to or slightly better than bibliographic coupling in terms of the accuracy of the resulting clustering solutions. The other way around, using a citation-based relatedness measure as evaluation criterion, BM25 turns out to yield more accurate clustering solutions than other text-based relatedness measures.

Wang, Kuansan; Shen, Zhihong; Huang, Chiyan; Wu, Chieh-Han; Dong, Yuxiao; Kanakia, Anshul (2020):

### Microsoft Academic Graph. When experts are not enough.

[Special Issue: Bibliographic data sources]. In: *Quantitative Science Studies* 1 (1), S. 396–413. DOI: 10.1162/qss\_a\_00021.

#### Abstract:

An ongoing project explores the extent to which artificial intelligence (AI), specifically in the areas of natural language processing and semantic reasoning, can be exploited to facilitate the studies of science by deploying software agents equipped with natural language understanding capabilities to read scholarly publications on the web. The knowledge extracted by these AI agents is organized into a heterogeneous graph, called Microsoft Academic Graph (MAG), where the nodes and the edges represent the entities engaging in scholarly communications and the relationships among them, respectively. The frequently updated data set and a few software tools central to the underlying AI components are distributed under an open data license for research and commercial applications. This paper describes the design, schema, and technical and business motivations behind MAG and elaborates how MAG can be used in analytics, search, and recommendation scenarios. How AI plays an important role in avoiding various biases and human induced errors in other data sets and how the technologies can be further improved in the future are also discussed.

Wang, Qi; Schneider, Jesper Wiborg (2020):

### Consistency and validity of interdisciplinarity measures.

In: *Quantitative Science Studies* 1 (1), S. 239–263. DOI: 10.1162/qss\_a\_00011.

#### Abstract:

Measuring interdisciplinarity is a pertinent but challenging issue in quantitative studies of science. There seems to be a consensus in the literature that the concept of interdisciplinarity is multifaceted and ambiguous. Unsurprisingly, various different measures of interdisciplinarity have been proposed. However, few studies have thoroughly examined the validity and relations between these measures. In this study, we present a systematic review of these interdisciplinarity measures and explore their inherent relations. We examine these measures in relation to the Web of Science journal subject categories. Our results corroborate recent claims that the current measurements of interdisciplinarity in science studies are both confusing and unsatisfying. We find surprisingly deviant results when comparing measures that supposedly should capture similar features or dimensions of the concept of interdisciplinarity. We therefore argue that the current measurements of interdisciplinarity should be interpreted with much caution in science and evaluation studies, or in relation to science policies. We also question the validity of current measures and argue that we do not need more of the same, but rather something different in order to be able to measure the multidimensional and complex construct of interdisciplinarity.

Wanzenböck, Iris; Lata, Rafael; Ince, Doga (2020):

### Proposal success in Horizon 2020. A study of the influence of consortium characteristics.

In: *Quantitative Science Studies* 1 (3), S. 1136–1158. DOI: 10.1162/qss\_a\_00067.

#### Abstract:

This study draws on evaluation data to investigate the success of collaborative R (b) level of experience and degree of acquaintance; and (c) the research capabilities and excellence or reputation of consortium members. We show that consortia with high levels of experience and reputation, involving a large share of Western European partners and engaged in more application-oriented consortia, have greater chances of success in acquiring H2020 project funding. This result has implications for the scientific community, as well as for the direction of EU research policy.

Weber, Tobias; Kranzlmüller, Dieter; Fromm, Michael; Sousa, Nelson Tavares de (2020):

### Using supervised learning to classify metadata of research data by field of study.

In: *Quantitative Science Studies* 1 (2), S. 525–550. DOI: 10.1162/qss\_a\_00049.

#### Abstract:

Many interesting use cases of research data classifiers presuppose that a research data item can be mapped to more than one field of study, but for such classification mechanisms, reproducible evaluations are lacking. This paper closes this gap: It describes the creation of a training and evaluation set comprised of labeled metadata, evaluates several supervised classification approaches, and comments on their application in scientometric research. The metadata were retrieved from the DataCite index of research data, pre processed, and compiled into a set of 613,585 records. According to our experiments with 20 general fields of study, multi layer perceptron models perform best, followed by long short-term memory models. The models can be used in scientometric research, for example to analyze interdisciplinary trends of digital scholarly output or to characterize growth patterns of research data, stratified by field of study. Our findings allow us to estimate errors in applying the models. The best performing models and the data used for their training are available for re use.

Wilson, Mark C.; Tang, Zhou (2020):

### Noncumulative measures of researcher citation impact.

In: *Quantitative Science Studies* 1 (3), S. 1309–1320. DOI: 10.1162/qss\_a\_00074.

*Abstract:*

The most commonly used publication metrics for individual researchers are the total number of publications, the total number of citations, and Hirsch's h-index. Each of these is cumulative, and hence increases throughout a researcher's career, making it less suitable for evaluation of junior researchers or assessing recent impact. Most other author-level measures in the literature share this cumulative property. By contrast, we aim to study noncumulative measures that answer the question "In terms of citation impact, what have you done lately?" We single out six measures from the rather sparse literature, including Hirsch's m-index, a time-scaled version of the h-index. We introduce new measures based on the idea of "citation acceleration." After presenting several axioms for noncumulative measures, we conclude that one of our new measures has much better theoretical justification. We present a small-scale study of its performance on real data and conclude that it shows substantial promise for future use.

Wuestman, Mignon; Hoekman, Jarno; Frenken, Koen (2020):

### A typology of scientific breakthroughs.

In: *Quantitative Science Studies* 1 (3), S. 1203–1222. DOI: 10.1162/qss\_a\_00079.

*Abstract:*

Scientific breakthroughs are commonly understood as discoveries that transform the knowledge frontier and have a major impact on science, technology, and society. Prior literature studying breakthroughs generally treats them as a homogeneous group in attempts to identify supportive conditions for their occurrence. In this paper, we argue that there are different types of scientific breakthroughs, which differ in their disciplinary occurrence and are associated with different considerations of use and citation impact patterns. We develop a typology of scientific breakthroughs based on three binary dimensions of scientific discoveries and use this typology to analyze qualitatively the content of 335 scientific articles that report on breakthroughs. For each dimension, we test associations with scientific disciplines, reported use considerations, and scientific impact. We find that most scientific breakthroughs are driven by a question and in line with literature, and that paradigm shifting discoveries are rare. Regarding the scientific impact of breakthrough as measured by citations, we find that an article that answers an unanswered question receives more citations compared to articles that were not motivated by an unanswered question. We conclude that earlier research in which breakthroughs were operationalized as highly cited scientific articles may thus be biased against the latter.

Yan, Erija; Zhu, Yongjun; He, Jianguo (2020):

### Analyzing academic mobility of U.S. professors based on ORCID data and the Carnegie Classification.

In: *Quantitative Science Studies* 1 (4), S. 1451–1467. DOI: 10.1162/qss\_a\_00088.

*Abstract:*

This paper uses two open science data sources—ORCID and the Carnegie Classification of Institutions of Higher Education (CCIHE)—to identify tenure-track and tenured professors in the United States who have changed academic affiliations. Through a series of data cleaning and processing actions, 5,938 professors met the selection criteria of professorship and mobility. Using ORCID professor profiles and the Carnegie Classification, this paper reveals patterns of academic mobility in the United States from the aspects of institution types, locations, regions, funding mechanisms of institutions, and professors' genders. We find that professors tended to move to institutions with higher research intensity, such as those with an R1 or R2 designation in the Carnegie Classification. They also tend to move from rural institutions to urban institutions. Additionally, this paper finds that female professors are more likely to move within the same geographic region than male professors and that when they move from a less research-intensive institution to a more research-intensive one, female professors are less likely to retain their rank or attain promotion.

Yan, Erija; Chen, Zheng; Li, Kai (2020):

### The relationship between journal citation impact and citation sentiment. A study of 32 million citances in PubMed Central.

In: *Quantitative Science Studies* 1 (2), S. 664–674. DOI: 10.1162/qss\_a\_00040.

*Abstract:*

Citation sentiment plays an important role in citation analysis and scholarly communication research, but prior citation sentiment studies have used small data sets and relied largely on manual annotation. This paper uses a large data set of PubMed Central (PMC) full-text publications and analyzes citation sentiment in more than 32 million citances within PMC, revealing citation sentiment patterns at the journal and discipline levels. This paper finds a weak relationship between a journal's citation impact (as measured by CiteScore) and the average sentiment score of citances to its publications. When journals are aggregated into quartiles based on citation impact, we find that journals in higher quartiles are cited more favorably than those in the lower quartiles. Further, social science journals are found to be cited with higher sentiment, followed by engineering and natural science and biomedical journals, respectively. This result may be attributed to disciplinary discourse patterns in which social science researchers tend to use more subjective terms to describe others' work than do natural science or biomedical researchers.

Zhao, Yong; Du, Jian; Wu, Yishan (2020):

The impact of J. D. Bernal's thoughts in the science of science upon China. Implications for today's quantitative studies of science.

[Special Issue: Bridging the divide between qualitative and quantitative science studies]. In: *Quantitative Science Studies* 1 (3), S. 959–968. DOI: 10.1162/qss\_a\_00064.

*Abstract:*

John Desmond Bernal (1901–1970) was one of the most eminent scientists in molecular biology and is also regarded as the founding father of the science of science. His book *The social function of science* laid the theoretical foundations for the discipline. In this article, we summarize four chief characteristics of his ideas in the science of science: the sociohistorical perspective, theoretical models, qualitative and quantitative approaches, and studies of science planning and policy. China has constantly reformed its scientific and technological system based on research evidence of the science of science. Therefore, we analyze the impact of Bernal's science-of-science thoughts on the development of China's science of science, and discuss how they might be usefully taken still further in quantitative studies of science.

Zingg, Christian; Nanumyan, Vahan; Schweitzer, Frank (2020):

Citations driven by social connections? A multi-layer representation of coauthorship networks.

In: *Quantitative Science Studies* 1 (4), S. 1493–1509. DOI: 10.1162/qss\_a\_00092.

*Abstract:*

To what extent is the citation rate of new papers influenced by the past social relations of their authors? To answer this question, we present a data-driven analysis of nine different physics journals. Our analysis is based on a two-layer network representation constructed from two large-scale data sets, INSPIREHEP and APS. The social layer contains authors as nodes and coauthorship relations as links. This allows us to quantify the social relations of each author, prior to the publication of a new paper. The publication layer contains papers as nodes and citations between papers as links. This layer allows us to quantify scientific attention as measured by the change of the citation rate over time. We particularly study how this change correlates with the social relations of their authors, prior to publication. We find that on average the maximum value of the citation rate is reached sooner for authors who have either published more papers or who have had more coauthors in previous papers. We also find that for these authors the decay in the citation rate is faster, meaning that their papers are forgotten sooner.

Zuckerman, Harriet (2020):

Is “the time ripe” for quantitative research on misconduct in science?

[Special Issue: Bridging the divide between qualitative and quantitative science studies]. In: *Quantitative Science Studies* 1 (3), S. 945–958. DOI: 10.1162/qss\_a\_00065.

*Abstract:*

Misconduct in science is a timely and substantively important problem in the social study of science. But in the absence of comprehensive and reliable data needed for analysis, formidable obstacles stand in the way of its being studied quantitatively. Accessible databases, including government data, are flawed, while undertaking new data collection presents its own problems. First, little is known about biases in official government reports. Second, official reports exclude classes of malfeasance other than fabrication, falsification, and plagiarism of evidence (FFP). Third, while drawing on official data is expedient, available official information is thin; it tells little about miscreants and fails to identify potential causes of their actions and the environments in which misconduct occurred. Fourth, it also fails the test of permitting estimates to be made of populations at risk, making it impossible to calculate incidence. A healthy dose of skepticism is in order in evaluating both the findings of current quantitative studies and of proposals for remediation.

## Specials

Erratum to: Zuckerman, H. (2020). Is “the time ripe” for quantitative research on misconduct in science? *Quantitative Science Studies*, 1(3), 945–958. [https://doi.org/10.1162/qss\\_a\\_00065](https://doi.org/10.1162/qss_a_00065).

[Erratum] (2020). In: *Quantitative Science Studies* 1 (4), S. 1653.

*Abstract:*

Two dating errors, both appearing in the first full paragraph on p. 949, require correction. One concerns the launching of the Retraction Watch blog, which should read 2010, and the other concerns the availability of its associated database, which should read 2018.

Thelwall, Mike (2020):

In memoriam Judit Bar-Ilan.

[Obituary]. In: *Quantitative Science Studies* 1 (1), S. 4–5. DOI: 10.1162/qss\_e\_00024.



## Editorials

Spaapen, Jack; Sivertsen, Gunnar (2020):

Assessing societal impact of SSH in an engaging world. Focus on productive interaction, creative pathways and enhanced visibility of SSH research.

[Introduction]. In: *Research Evaluation* 29 (1), S. 1–3. DOI: 10.1093/reseval/rvz035.

## Original Articles

Baimpos, Theodoros; Dittel, Nils; Borissov, Roumen (2020):

Unravelling the panel contribution upon peer review evaluation of numerous, unstructured and highly interdisciplinary research proposals.

In: *Research Evaluation* 29 (3), S. 316–326. DOI: 10.1093/reseval/rvz013.

### Abstract:

In this study, we analyze the two-phase bottom-up procedure applied by the Future and Emerging Technologies Program (FET-Open) at the Research Executive Agency (REA) of the European Commission (EC), for the evaluation of highly interdisciplinary, multi-beneficiary research proposals which request funding. In the first phase, remote experts assess the proposals and draft comments addressing the pre-defined (by FET-Open) evaluation criteria. In the second phase, a new set of additional experts (of more general expertise and different from the remote ones), after cross reading the proposals and their remote evaluation reports, they convene in an on-site panel where they discuss the proposals. They complete the evaluation by reinforcing per proposal and per criterion one or another assessment, as assigned remotely during the first phase. We analyze the level of the inter-rater agreement among the remote experts and we identify its relative correlation with the funded proposals resulted after the end of the evaluation. Our study also provides comparative figures of the evolution of the proposals' scores during the two phases of the evaluation process. Finally, by carrying out an appropriate quantitative and qualitative analysis of all scores from the seven past cut-offs, we elaborate on the significant contribution of the panel (the second phase of the evaluation) in identifying and promoting the best proposals for funding.

Bedessem, Baptiste (2020):

Should we fund research randomly? An epistemological criticism of the lottery model as an alternative to peer review for the funding of science.

In: *Research Evaluation* 29 (2), S. 150–157. DOI: 10.1093/reseval/rvz034.

### Abstract:

The way research is, and should be, funded by the public sphere is the subject of renewed interest for sociology, economics, management sciences, and more recently, for the philosophy of science. In this contribution, I propose a qualitative, epistemological criticism of the funding by lottery model, which is advocated by a growing number of scholars as an alternative to peer review. This lottery scheme draws on the lack of efficiency and of robustness of the peer-review-

based evaluation to argue that the majority of public resources for basic science should be allocated randomly. I first differentiate between two distinct arguments used to defend this alternative funding scheme based on considerations about the logic of scientific research. To assess their epistemological limits, I then present and develop a conceptual frame, grounded on the notion of 'system of practice', which can be used to understand what precisely it means, for a research project, to be interesting or significant. I use this epistemological analysis to show that the lottery model is not theoretically optimal, since it underestimates the integration of all scientific projects in densely interconnected systems of conceptual, experimental, or technical practices which confer their proper interest to them. I also apply these arguments in order to criticize the classical peer-review process. I finally suggest, as a discussion, that some recently proposed models that bring to the fore a principle of decentralization of the evaluation and selection process may constitute a better alternative, if the practical conditions of their implementation are adequately settled.

Biegelbauer, Peter; Palfinger, Thomas; Mayer, Sabine (2020):

### How to select the best. Selection procedures of innovation agencies.

In: *Research Evaluation* 29 (3), S. 289–299. DOI: 10.1093/reseval/rvaa011.

#### *Abstract:*

Innovation agencies, that is organizations with the primary focus of funding applied research and technological development, evaluate project proposals to select the most promising proposals for funding. At the moment, there is only little verified knowledge available on project evaluation and selection processes of innovation agencies. We want to show how projects are evaluated and selected in these organizations. We want to also make a contribution for better understanding the variety of the utilized processes by pointing out the reasoning behind some of the most important practices. This article therefore focuses on the following questions: How are projects selected in innovation agencies? What are the employed procedures and practices? Are there differences in procedures and practices and what would be the reason for these differences? The basis for answering these questions is a study produced for the European Association of National Innovation Agencies, Taftie. There we have analysed the project selection procedures of 18 programmes run by 12 European innovation agencies. To do so, we have produced an overview of existing selection procedures of the innovation agencies, analysed, and compared the procedures along the stages of a typical selection process. The key points of interest were role of evaluators, selection criteria, ranking procedures, and general process issues.

Bone, Frederique; Hopkins, Michael M.; Rafols, Ismael; Molas-Gallart, Jordi; Tang, Puay; Davey, Gail; Carr, Antony M. (2020):

### DARE to be different? A novel approach for analysing diversity in collaborative research projects.

In: *Research Evaluation* 29 (3), S. 300–315. DOI: 10.1093/reseval/rvaa006.

#### *Abstract:*

Growth in collaborative research raises difficulties for those tasked with research evaluation, particularly in situations where outcomes are slow to emerge. This article presents the 'Diversity Approach to Research Evaluation' (DARE) as a novel way to assess how researchers engaged in knowledge creation and application work together as teams. DARE provides two important insights: first, it reveals the differences in background and experience between individual team members that can make research collaboration both valuable and challenging; second, DARE provides early insights into how team members are working together. DARE achieves these insights by analysing team diversity and cohesiveness in five dimensions, building on Boschma's multi-dimensional concept of proximity. The method we propose combines narratives, maps, and indicators to facilitate the study of research collaboration. The article introduces the DARE method and pilots an initial operationalization through the study of two grant-funded biomedical research projects led by researchers in the UK. Suggestions for further development of the approach are discussed.

Boshoff, Nelijs; Jong, Stefan P. L. de (2020):

### Conceptualizing the societal impact of research in terms of elements of logic models. A survey of researchers in sub-Saharan Africa.

In: *Research Evaluation* 29 (1), S. 48–65. DOI: 10.1093/reseval/rvz020.

*Abstract:*

This study addressed the conceptualization of the societal impact of research from the perspective of programme evaluation, by focusing on the three ‘result’ elements of logic models: outputs, outcomes, and impact. In research evaluation, the distinction could resemble a difference between product, use, and benefit. The study established whether researchers in sub-Saharan Africa (SSA), South Africa excluded, view societal impact as extending across all three elements or as confined to the last element only. A web survey of 485 SSA researchers was conducted, as researchers from this region are not yet bounded by policy definitions of impact. The survey imposed the three elements of logic models onto five hypothetical descriptions of ‘impactful’ research initiatives. Respondents rated each element in terms of how much it reflects the societal impact of research. For any initiative, use was more likely to be considered a strong example of societal impact compared to a product, but less likely so compared to benefit. Between 23% and 43% of respondents rated all three elements as strong examples of the societal impact of research. Responses were analyzed by SSA region and the research domain and years of research experience of survey participants. An open-ended question about own understandings of societal impact was included as well in the survey. The responses portrayed impact as a (generally) positive effect that contributes to change in the daily life of human kind. The expectation that research should have impact at an almost general level of aggregation could be unique to the SSA context.

Chi, Pei-Shan (2020):

The field-specific citation and usage patterns of book literature in the Book Citation Index.

In: *Research Evaluation* 29 (2), S. 203–214. DOI: 10.1093/reseval/rvz037.

*Abstract:*

The usage data provided by Web of Science Core Collection (WoS) implies the scholarly interest of researchers through full text accesses and record saves on the platform. The WoS usage count has been studied for journal papers alongside citations at different levels of journal, country, and field. To extend the results of the previous studies, this study explores the WoS usage counts for book literature in the Book Citation Index (BKCI) to determine the usefulness of the usage statistics provided by the new data source and their different patterns across fields as well as document types. The correlations between WoS citations and usage counts are from weak to moderate in six selected fields. Edited books have stronger correlations between the two metrics than the other two document type groups. Usage data of aggregated book volumes in the sciences correlate with citations significantly and show higher utilization rates than citations. Their usage counts on the same platform are the supplement of WoS citations in the fields. In contrast, book publications in the social sciences and humanities (SSH) present a different pattern of their usage to reduce its ability to coordinate citations. In addition, the low usage of books in SSH may indicate the limited access of the BKCI-SSH and probably lower effectiveness of its usage data compared to the Social Sciences Citation Index (SSCI). However, the further investigation of altmetric usage metrics from different sources confirms an overall lower usage for books in the social sciences than in the sciences.

Faure, Guy; Blundo-Canto, Genowefa; Devaux-Spatarakis, Agathe; Le Guerroue, Jean Louis; Mathe, Syndhia; Temple, Ludovic et al. (2020):

A participatory method to assess the contribution of agricultural research to societal changes in developing countries.

In: *Research Evaluation* 29 (2), S. 158–170. DOI: 10.1093/reseval/rvz036.

*Abstract:*

Over the last decade, societal pressure has increased on public research agencies to provide evidence that their research contributes to achieve development goals. To address this challenge, the French Agricultural Research Center for International Development (Cirad), developed an ex post impact assessment method based on the impact pathway approach, called Impact of Research in the South (ImpresS). The reconstruction of the impact pathway identifies and assesses research outputs, outcomes, and impacts on development over long-time spans, taking into account the contribution of other stakeholders, projects, and contextual factors. By applying mixed methods and participatory approaches, ImpresS involves key actors in assessing the contribution of research to impacts in innovation processes. Such a participatory approach raises, however, questions about the advantages and disadvantages of participation in impact assessment. This article examines whether and how participation affects the results of an evaluation and the methodological challenges this poses. The analysis is based on 13 case studies covering different innovation processes, countries, and time spans. The main results show that participation, combined with triangulation of information including quantitative and qualitative data, strengthens the explanation of the causal relationships among outputs, outcomes, and

impacts. It helps reveal a large and diversified list of impacts based on the perception of actors, especially uncovering positive and negative impacts unexpected by researchers. However, participation may render other impacts less visible, especially those related to environmental and political issues. Furthermore, participatory evaluation entangles challenges linked to expectations, divergent perceptions, power dynamics, and social inequality, which must be carefully addressed to provide robust and transparent evaluation results.

Ibrahim, Bahaa (2020):

The role of Egyptian State Awards in changing researchers' performance in the science and technology sector.

In: *Research Evaluation* 29 (2), S. 171–190. DOI: 10.1093/reseval/rvz038.

*Abstract:*

Egyptians generally pay attention to the State Awards as the most prestigious awards that Egyptian researchers can receive, including the Nile Award, the State Appreciation Award, the State Award of Excellence, and the State Encouragement Award. The current study is an attempt to investigate the role of national awards in the scientific research system, in order to identify the characteristics of Egyptian State Award laureates in science and technology during 2012–5, to determine their international literature, and to explore the implications of receiving a national award using bibliometric indicators. Scopus database was used to extract data, and the statistical software package SPSS was used to analyze. The study sample was 212 laureates, in addition to the control group of 184 researchers who closely matches the academic profiles of the laureates. The performance of the laureates and the control group was compared before and after the award by using four bibliometric indicators and the Wilcoxon matched-pairs signed-ranks test. The laureates produced 13,598 publications from 1958 to 2018. Most of the laureates' literature (94.35%) were published with coauthors. The Egyptian State Award laureates often collaborate with their Saudi Arabian and American colleagues, more than others. The average values of publications, citations, and citations per publication have increased after receipt of the award, unlike the h-index. Results indicated that receiving the State Award has a negative impact on the laureates' performance.

Jong, Stefan P. L. de; Muhonen, Reetta (2020):

Who benefits from ex ante societal impact evaluation in the European funding arena? A cross-country comparison of societal impact capacity in the social sciences and humanities.

In: *Research Evaluation* 29 (1), S. 22–33. DOI: 10.1093/reseval/rvy036.

*Abstract:*

Increasingly, research funders include societal impact as a criterion in evaluation procedures. The European Commission is no exception to this trend. Societal impact determines one-third of a project's success in receiving funding from the Societal Challenges in Horizon 2020 (H2020). Yet, there are large differences in terms of science and technology performance between countries that participate in the programme. In this article, we (1) compare societal impact practices in the social sciences and humanities in high-performing countries (HPCs) and low-performing countries (LPCs) to the evaluation of societal impact in funding procedures at the European level and (2) reflect upon consequences for the competition for research funding in the European funding arena. To this end, we introduce the concept of 'societal impact capacity' as well as a framework to analyse it. The analysis of 60 case studies from 16 countries across Europe shows that (1) researchers from HPCs have a higher impact capacity than those from LPCs and (2) researchers from HPCs report more details about impact than those from LPCs. This suggests that researchers from HPCs are better equipped to score well on the impact criterion when applying for funding than researchers from LPCs. We conclude with policy recommendations for the organization and evaluation of societal impact.

Kassab, Omar; Mutz, Rudiger; Daniel, Hans-Dieter (2020):

Introducing and testing an advanced quantitative methodological approach for the evaluation of research centers. A case study on sustainability science.

In: *Research Evaluation* 29 (2), S. 135–149. DOI: 10.1093/reseval/rvz029.

*Abstract:*

With the growing complexity of societal and scientific problems, research centers have emerged to facilitate the conduct of research beyond disciplinary and institutional boundaries. While they have become firmly established in the global university landscape, research centers raise some critical questions for research evaluation. Existing evaluation approaches designed to assess universities, departments, projects, or individual researchers fail to capture some of the core characteristics of research centers and their participants, including the diversity of the involved researchers, at what point in time they join and leave the research center, or the intensity of their participation. In addressing these aspects, this article introduces an advanced approach for the ex post evaluation of research centers. It builds on a quasi-experimental within-group design, bibliometric analyses, and multilevel statistics to assess average and individual causal effects of research center affiliation on participants along three dimensions of research performance. The evaluation approach is tested with archival data from a center in the field of sustainability science. Against a widely held belief, we find that participation in research centers entails no disadvantages for researchers as far as their research performance is concerned. However, individual trajectories varied strongly.

Mitchell, Jessica; Testa, Giuseppina; Martinez, Miguel Sanchez; Cunningham, Paul N.; Szkuta, Katarzyna (2020):

### Tax incentives for R&D. Supporting innovative scale-ups?

In: *Research Evaluation* 29 (2), S. 121–134. DOI: 10.1093/reseval/rvz026.

*Abstract:*

This article investigates the impact of tax incentives targeting young innovative firms and broader R&D tax incentives where effects on young firms are observed. It examines effects on R&D additionality, R&D wages, employment growth, turnover growth, and sales growth from innovative activities. It draws on academic literature and policy evaluation studies and uses a mixed-method approach based on evaluation synthesis. Evidence on the effectiveness of tax incentives on young and small firms' employment and economic performance is relatively limited, largely due to a dearth of evaluations. This analysis, based on a limited number of studies, finds that with regard to R&D additionality, generic R&D tax incentives tend to have a larger, or at least as large, effect on young companies, both when compared with companies of average age (with the exception of a study on an Irish tax instrument), and when compared with grants and loans. Some evidence also shows a positive effect on wages. More limited evidence shows that R&D tax incentives targeted at young companies tend to have positive effects on R&D intensity and wages, but that effects decrease relatively if combined with other instruments such as subsidies. With regard to output additionality, generic R&D tax incentives have a limited impact on innovation for all companies and a positive impact on turnover, turnover share of new products or services and labour productivity. There is some evidence of positive effects on employment, productivity, sales and added-value of targeted measures, but these results should be validated using more robust methods.

Muhonen, Reetta; Benneworth, Paul; Olmos-Penuela, Julia (2020):

### From productive interactions to impact pathways. Understanding the key dimensions in developing SSH research societal impact.

In: *Research Evaluation* 29 (1), S. 34–47. DOI: 10.1093/reseval/rvz003.

*Abstract:*

Impact is increasingly important for science policy-makers. Science policy studies have reacted this heightened urgency by studying these policy-interventions meaning that policy has developed more quickly than theory. This has led to the prevalence of a 'common sense' impact definition: research's societal impact are direct economic effects, such as income generated by licenses, patents, and spin-out companies. These indicators are recognized as weak proxies for research's societal benefits, and in response, science policy has undertaken a huge descriptive effort to more precisely define impact. Social sciences and humanities (SSH) disciplines have been highly active in this because economic metrics are very poor measures of their societal impact. One interesting theoretical development describing diversity was Spaapen and Van Drooge's 'productive interactions' concept. In this article, we seek to realize the potential that Spaapen and Van Drooge's productive interactions concept offers, but which we argue has been lost through its operationalisation as a process of 'counting interactions'. We address the need to pay attention not only to productive interactions, but to the changes they mediate. Therefore, we ask the following research question: how can we develop a typology that captures the diversity of the mechanisms by which SSH research leads to societal impact? Drawing on a comparative analysis of 60 examples of SSH impact, we develop a typology of SSH pathways to societal impact. Considering that the absence of societal impact of

research is not necessarily a sign of uselessness of research in impact assessment, we address the importance of paying attention also to the conditions supporting impact processes.

Netz, Nicolai; Hampel, Svenja; Aman, Valeria (2020):

### What effects does international mobility have on scientists' careers? A systematic review.

In: *Research Evaluation* 29 (3), S. 327–351. DOI: 10.1093/reseval/rvaa007.

#### Abstract:

The internationalization and specialization of science confront scientists with opportunities and sometimes even a need to become internationally mobile during their careers. Against this background, we systematically reviewed empirical studies on the effects that mobility across national borders has on the careers of scientists. Using several search channels, we identified 96 studies - published between 1994 and 2019 - that examine how international mobility influences eight dimensions of scientists' careers. Listed in descending order of the number of identified studies, these dimensions comprise scientists' (1) international networks, (2) scientific productivity, (3) occupational situation, (4) scientific impact, (5) competences and personality, (6) scientific knowledge, (7) access to research infrastructures and funds, and (8) symbolic capital. Existing research provides robust evidence of positive effects of international mobility on the broadening of scientists' networks. Moreover, several solid studies examine the effect of international mobility on scientists' productivity, impact, and occupational situation. Most of them find positive effects, but some also find no or negative effects. Studies on the other career dimensions are not only less frequent, but mostly also less robust. Our review reveals potential to advance research in the field by using less selective samples and more rigorous methodological approaches. Intending to spur further theory-driven empirical research, we develop a model integrating research on the identified career dimensions and derive various questions for future research. We conclude by highlighting policy implications of existing research.

Nicholas, David; Herman, Eti; Jamali, Hamid R.; Abrizah, Abdullah; Boukacem-Zeghmouri, Cherifa; Xu, Jie et al. (2020):

### Millennial researchers in a metric-driven scholarly world. An international study.

In: *Research Evaluation* 29 (3), S. 263–274. DOI: 10.1093/reseval/rvaa004.

#### Abstract:

The study Investigates the attitudes and practices of early career researchers (ECRs) in regard to citation-based metrics and altmetrics, providing the findings in the light of what might be expected of the millennial generation and in the context of what we already know about researchers in today's 'culture of counting' governed scholarly world. The data were gathered by means of an international survey, informed by a preceding, 3-year qualitative study of 120 ECRs from 7 countries, which obtained 1,600 responses. The main conclusions are: 1, citation indicators play a central and multi-purpose role in scholarly communications; 2, altmetrics are not so popular or widely used, but ECRs are waking up to some of their merits, most notably, discovering the extent to which their papers obtain traction and monitoring impact; 3, there is a strong likelihood that ECRs are going to have to grapple with both citation-based metrics and altmetrics, mainly in order to demonstrate research impact; 4, the Chinese are the most metric using nation, largely because of governmental regulations.

Pedersen, David Budtz; Gronvad, Jonas Folsgaard; Hvidtfeldt, Rolf (2020):

### Methods for mapping the impact of social sciences and humanities. A literature review.

In: *Research Evaluation* 29 (1), S. 4–21. DOI: 10.1093/reseval/rvz033.

#### Abstract:

This article explores the current literature on 'research impact' in the social sciences and humanities (SSH). By providing a comprehensive review of available literature, drawing on national and international experiences, we take a systematic look at the impact agenda within SSH. The primary objective of this article is to examine key methodological components used to assess research impact comparing the advantages and disadvantages of each method. The study finds that research impact is a highly complex and contested concept in the SSH literature. Drawing on the strong methodological pluralism emerging in the literature, we conclude that there is considerable room for researchers, universities, and funding agencies

to establish impact assessment tools directed towards specific missions while avoiding catch-all indicators and universal metrics.

Pinar, Mehmet (2020):

It is not all about performance. Importance of the funding formula in the allocation of performance-based research funding in England.

In: *Research Evaluation* 29 (1), S. 100–119. DOI: 10.1093/reseval/rvz030.

*Abstract:*

Performance-based research funding systems have become popular over the last decades. One of the main reasons for these funding systems is to allow funding bodies to allocate public research funds more effectively based on the assessed quality. However, the performance-based research funding received by higher education institutes (HEIs) not only depends on the quality of research activity carried out but also on the funding formula used by funding bodies. This article examines the funding formula used by Research England (RE) and assesses the effect of this formula on quality-related research (QR) funding allocation using data of mainstream QR funding allocation for the 2017-18 period. RE's funding formula includes some value judgements by policymakers such as allocation of fourfold QR funding to 'world-leading' research compared to 'internationally-excellent' research, and the use of different subject cost weights. These value judgements play an important role in the allocation of QR funding beyond the assessed quality of research. This article finds that changes in some of these value judgments such as allocation of threefold (rather than fourfold) QR funding to world-leading research compared to internationally excellent research, or the use of alternative subject cost weights lead to major changes in the allocation of QR funding to different subject areas and HEIs. Results suggest that these value judgments are also important beyond the assessed quality of research, and that consultation of different subject areas and HEIs about these decisions and re-evaluation of some of these value judgements are needed for a more accountable distribution of QR funding.

Pinar, Mehmet; Unlu, Emre (2020):

Determinants of quality of research environment. An assessment of the environment submissions in the UK's Research Excellence Framework in 2014.

In: *Research Evaluation* 29 (3), S. 231–244. DOI: 10.1093/reseval/rvaa003.

*Abstract:*

One of the assessed research elements in the UK's Research Excellence Framework (REF) exercise in 2014 was the research environment. The quality of the research environment was assessed by expert peer reviewers who were given a set of quantitative factors to support their decision making. However, there is no systematic procedure to integrate this quantitative information into the evaluation process. This article evaluates the relevance of quantitative factors in explaining the assessed quality of the research environment. Findings suggest submitting units with high external research income generation tend to have a better research environment evaluation in almost all the assessed subject areas. The importance given by reviewers to similar quantitative factors was distinctively different in two units of assessment (UoA) in which the evaluation criteria were the same, which highlights the internal inconsistency of the peer review evaluation. Our findings also confirm the existence of the 'halo effect' in some UoA where submitting units that belong to the Russell group and have sub-panel members in the REF exercise obtained higher scores even after controlling for the assessed quantitative factors.

Rodriguez-Navarro, Alonso; Brito, Ricardo (2020):

Like-for-like bibliometric substitutes for peer review. Advantages and limits of indicators calculated from the  $e(p)$  index.

In: *Research Evaluation* 29 (2), S. 215–230. DOI: 10.1093/reseval/rvaa002.

*Abstract:*

The use of bibliometric indicators would simplify research assessments. The 2014 Research Excellence Framework (REF) is a peer review assessment of UK universities, whose results can be taken as benchmarks for bibliometric indicators. In this

study, we use the REF results to investigate whether the e(p) index and a top percentile of most cited papers could substitute for peer review. The probability that a random university's paper reaches a certain top percentile in the global distribution of papers is a power of the e(p) index, which can be calculated from the citation-based distribution of university's papers in global top percentiles. Making use of the e(p) index in each university and research area, we calculated the ratios between the percentage of 4-star-rated outputs in REF and the percentages of papers in global top percentiles. Then, we fixed the assessment percentile so that the mean ratio between these two indicators across universities is 1.0. This method was applied to four units of assessment in REF: Chemistry, Economics and Econometrics joined to Business and Management Studies, and Physics. Some relevant deviations from the 1.0 ratio could be explained by the evaluation procedure in REF or by the characteristics of the research field; other deviations need specific studies by experts in the research area. These results indicate that in many research areas the substitution of a top percentile indicator for peer review is possible. However, this substitution cannot be made straightforwardly; more research is needed to establish the conditions of the bibliometric assessment.

Sigurdarson, Eiríkur Smari (2020):

### Capacities, capabilities, and the societal impact of the humanities.

In: *Research Evaluation* 29 (1), S. 71–76. DOI: 10.1093/reseval/rvz031.

#### Abstract:

This article explores new theoretical directions for understanding societal impact of the humanities and in a wider context. Arguing from the position that current evaluation policies and practises are in many cases ill-suited to research in the humanities, with risk of goal displacement, it takes up the debate about what the proper goals of research in the humanities are. Asking: If we risk goal displacement, what are the proper goals researchers are being led away from? Using Miranda Fricker's theory of epistemic justice and Amartya Sen's capability approach, it argues for the need for a 'capability theory' for social capacities to understand societal impact. On the basis of this, a better understanding of the societal impact of research in the humanities can be developed, as well as new ways of assessing (ex ante and ex post) the societal impact of research projects and programmes in the humanities.

Sivertsen, Gunnar; Meijer, Ingeborg (2020):

### Normal versus extraordinary societal impact. How to understand, evaluate, and improve research activities in their relations to society?

In: *Research Evaluation* 29 (1), S. 66–70. DOI: 10.1093/reseval/rvz032.

#### Abstract:

Societal impact of research does not occur primarily as unexpected extraordinary incidents of particularly useful breakthroughs in science. It is more often a result of normal everyday interactions between organizations that need to create, exchange, and make use of new knowledge to further their goals. We use the distinctions between normal and extraordinary societal impact and between organizational- and individual-level activities and responsibilities to discuss how science-society relations can better be understood, evaluated, and improved by focusing on the organizations that typically interact in a specific domain of research.

Thomas, Duncan A.; Nedeva, Maria; Tirado, Mayra M.; Jacob, Merle (2020):

### Changing research on research evaluation. A critical literature review to revisit the agenda.

In: *Research Evaluation* 29 (3), S. 275–288. DOI: 10.1093/reseval/rvaa008.

#### Abstract:

The current range and volume of research evaluation-related literature is extensive and incorporates scholarly and policy/practice-related perspectives. This reflects academic and practical interest over many decades and trails the changing funding and reputational modalities for universities, namely increased selectivity applied to institutional research funding streams and the perceived importance of university rankings and other reputational devices. To make sense of this highly diverse body of literature, we undertake a critical review of over 350 works constituting, in our view, the 'state-of-



the-art' on institutional performance-based research evaluation arrangements (PREAs). We focus on PREAs because they are becoming the predominant means world-wide to allocate research funds and accrue reputation for universities. We highlight the themes addressed in the literature and offer critical commentary on the balance of scholarly and policy/practice-related orientations. We then reflect on five limitations to the state-of-the-art and propose a new agenda, and a change of perspective, to progress this area of research in future studies.

Vanecek, Jiri; Pecha, Ondrej (2020):

**Fast growth of the number of proceedings papers in atypical fields in the Czech Republic is a likely consequence of the national performance-based research funding system.**

In: *Research Evaluation* 29 (3), S. 245–262. DOI: 10.1093/reseval/rvaa005.

*Abstract:*

This article compares the growth rates of Web of Science indexed research publications in 11 European countries from 2000 to 2015. The growth of publication output in the Czech Republic was very fast: the annual production increased more than threefold. However, the number of articles increased only 2.6-fold, whereas the number of proceedings papers increased eightfold. During 2013–15 almost one-third of the papers published by researchers based in the Czech Republic were proceedings papers, a much higher share than in any other benchmark country. Such a high share is undesirable, because proceedings papers are generally much less often cited than journal articles. The growth of the number of proceedings papers is fastest in 17 fields belonging to the social sciences which usually do not hold proceedings papers in high regard. Our analysis shows that this undesirable development started after the introduction of national performance-based research funding system (PRFS) in the Czech Republic. Hence, the effort made to publish proceedings papers seems to reflect an optimization strategy in the light of the PRFS. In the Czech PRFS, proceedings papers have been rewarded point values similar to articles in refereed journals and a large portion of the institutional funding is allocated according to the evaluation results. As a consequence of very fast growth of proceedings papers in the social sciences, the university institutional funding in these fields has grown faster than in other fields. In conclusion, the fast growth of proceedings papers represents an adaptive behavior to the context of the PRFS.

Williams, Kate (2020):

**Playing the fields. Theorizing research impact and its assessment.**

In: *Research Evaluation* 29 (2), S. 191–202. DOI: 10.1093/reseval/rvaa001.

*Abstract:*

How research is assessed affects what types of knowledge are valued, incentivized, and rewarded. An increasingly important element of contemporary research evaluation is the measurement of the wider impact of research (e.g. benefit to society, culture or economy). Although the measurement of impact has been highly contested, the area is under-theorized and dominated by pragmatic research policy imperatives. Informed by a sociological perspective, this article intervenes in this context by reframing research impact as the attainment and maintenance of capital (i.e. symbolic power or status) in various fields beyond academia. It argues that research impact occurs at the intersection of these fields of power. The article shows that impact involves various combinations of capital from the scholarly field, the field of politics, the field of application, the media field, and the economic field, which provide credibility, authority, utility, visibility, and weight, respectively. In exploring the forms of worth and value that underpin the pursuit of legitimacy in these fields, the article provides a new theoretical framework for understanding research impact and its assessment.

Xu, Xin (2020):

**Performing under 'the baton of administrative power'? Chinese academics' responses to incentives for international publications.**

In: *Research Evaluation* 29 (1), S. 87–99. DOI: 10.1093/reseval/rvz028.

*Abstract:*

Incentivizing international publications is a current topic of national debate in China and some other non-English-speaking countries, echoing the discussion of managerialism in many other contexts. However, there is a shortage of research to conceptualize academics' responses with empirical evidence. The study draws on 65 in-depth interviews with humanities and social sciences academics at six Chinese universities. It proposes two typologies to categorize academics' affective responses (proactive, adaptive, resistant, hesitant, and detached) and behavioural responses (reconciling, rejecting, reforming, and rebelling). Building on the typologies, a framework is developed to explain the complicated relationship between incentives and publications. In addition, findings suggest that incentives imposed through administrative power could challenge academics' agency. The study thereby proposes a reconsideration and reconstruction of current incentive schemes, to move beyond managerialism and towards the integration of intrinsic academic values.

Yue, Weizhen; Gao, Jun; Suo, Weilan (2020):

Efficiency evaluation of S&T resource allocation using an accurate quantification of the time-lag effect and relation effect. A case study of Chinese research institutes.

In: *Research Evaluation* 29 (1), S. 77–86. DOI: 10.1093/reseval/rvz027.

*Abstract:*

Efficiency evaluation is a significant means of judging the allocation quality of science and technology (S&T) resource. In reality, the process of S&T resource allocation is accompanied by the time-lag effect and relation effect, and the effect differences among research institutes are obvious. In this study, we attempt to conduct efficiency evaluation of S&T resource allocation in Chinese research institutes using an accurate quantification of the time-lag effect and relation effect. A hybrid model for efficiency evaluation is designed, where the vector autoregression (VAR) model and the output revision model are adopted to quantify the time-lag effect and relation effect, and an extended super-efficiency data envelopment analysis (SE-DEA) model is proposed to conduct efficiency estimation under the quantified effects. Subsequently, a quantitative case study is conducted based on 30 sample institutes in the Chinese Academy of Sciences using statistical data from 1992 to 2014. The results indicate that the time-lag effect of each institute varies with the forms of outputs owing to the difference of individual transformation capability. The relation effect of each institute varies with the allocation proportions of inputs owing to the difference of individual developmental orientation. Compared with other methods, the proposed hybrid model can not only determine a discriminative ranking of the sample institutes, but also clarify the strengths and weaknesses of each institute. These main findings are beneficial for decision makers of sample institutes to realize the overall optimization of S&T resource allocation from the aspects of capability promotion, resource adjustment, and efficiency improvement.

## Review

Hicks, Diana (2020):

A superb example of policy evaluation: Erik Mouritzen Poul and Opstrup Niels. 'Performance management at universities: The Danish Bibliometric Research Indicator at work', Palgrave Macmillan, 2020, 297 p, ISBN 978-3-030-21324-4.

[Review]. In: *Research Evaluation* 29 (3), S. 352–353. DOI: 10.1093/reseval/rvaa009.

## Original Articles

Barringer, Sondra N.; Leahey, Erin; Salazar, Karina (2020):

### What Catalyzes Research Universities to Commit to Interdisciplinary Research?

In: *Research in Higher Education* 61 (6), S. 679–705. DOI: 10.1007/s11162-020-09603-x.

#### Abstract:

For decades, science policy has been promoting interdisciplinary research (IDR), but universities have not responded uniformly. To explain this variation, we integrate insights from the organizational literature, especially research on microfoundations, and highlight the role of both administrators and faculty. We collect and, with the help of machine learning, code vast amounts of textual data from 156 universities nationwide to measure universities' structural commitment to IDR as well as key explanatory variables, including top-down administrative support for, and bottom-up faculty engagement with, IDR. We integrate these measures with extant data from the Survey of Earned Doctorates, Higher Education R&D Expenditures Survey, NIH, NSF, and IPEDS to analyze how internal university dynamics influence the degree to which a university commits to IDR. Our results reveal that the level of structural commitment to IDR differs at universities with and without medical schools, as do the precursors to this commitment. At universities with medical schools, we find that bottom-up engagement is positively associated with structural commitment to IDR, and that status moderates the relationship between top-down administrative support and structural commitment to IDR. For universities with low levels of supportive administrative discourse status significantly impacted their structural commitment to IDR. At universities without medical schools, top-down support and bottom-up engagement are interrelated and mutually reinforcing such that universities with high levels of both administrative support and interdisciplinary research grants have higher levels of structural commitment to IDR. We discuss the implications of these findings for university administrators, policy makers, and researchers.

Bowman, Nicholas A.; Jang, Nayoung; Kivlighan III, D. Martin; Schneider, Nancy; Ye, Xiaomeng (2020):

### The Impact of a Goal-Setting Intervention for Engineering Students on Academic Probation.

In: *Research in Higher Education* 61 (1), S. 142–166. DOI: 10.1007/s11162-019-09555-x.

#### Abstract:

Many degree-seeking college students struggle academically and ultimately never graduate. Academic challenges and persistence within the major are especially salient issues for students who major in science, technology, engineering, and mathematics. Academic probation serves as a means for informing students that they are at risk of dismissal, and many colleges and universities offer services to help students placed on probation to succeed academically. This paper presents two studies that examined the effectiveness of a goal-setting academic advising intervention for improving the grades of engineering students who were on academic probation; one study used a regression discontinuity design, and the other used an experimental design. The findings of both studies support the same overall conclusion: The intervention notably increased the grades of engineering students on probation who are beyond their first year of college, but it was not effective for students in their first year. This brief academic enhancement intervention appears to constitute a cost-effective strategy for bolstering the academic success of at-risk college students after their first year.

Collier, Daniel A.; Fitzpatrick, Dan; Brehm, Chelsea; Hearit, Keith; Beach, Andrea (2020):

### Structuring First-Year Retention at a Regional Public Institution. Validating and Refining the Structure of Bowman's SEM Analysis.

In: *Research in Higher Education* 61 (8), S. 917–942. DOI: 10.1007/s11162-020-09612-w.

#### Abstract:

Structural equation modeling (SEM) considering how students' non-cognitive attributes influence first-year college student persistence remain extraordinarily rare—as are studies that test and expand upon published structural models or studies that include college student food security. This study addresses each. We surveyed “Beginner” Freshmen, capturing eight non-cognitive measurements and using institutional data on performance and fall-to-fall persistence measures, we then tested the structure of Bowman et al.'s (*Res High Educ* 60:135–152, 2019) SEM model. In Model 1, we mimic the Bowman model's financial variable by only including financial stress. We confirm that Bowman is a good structural model of student persistence, although our data were collected for another purpose, using different scales for non-cognitive elements and even one different non-cognitive measurement. We found students' non-cognitive attributes remain importantly influential to social adjustment ( $r = .65$ ), commitment to persist ( $r = .40$ ), college GPA ( $r = .25$ ), and fall-to-fall persistence ( $r = .30$ ). In Model 2, we generated a latent financial security variable incorporating financial stress and food security. Including food security generated a direct influence from the financial security variable to high-school GPA ( $r = .25$ ), not found in the Bowman model or Model 1, and a direct significant relationship from financial security to social adjustment ( $r = .11$ )—not found in Model 1. Further changes are observed in the indirect relationship from financial security to college GPA from Model 1 ( $r = .29$ ) to Model 2 ( $r = .51$ ). We highlight the robustness of the Bowman model and that the inclusion of food security brings increased strength to several relationships without sacrificing optimal fit.

Culver, K. C.; Bowman, Nicholas A. (2020):

### Is What Glitters Really Gold? A Quasi-Experimental Study of First-Year Seminars and College Student Success.

In: *Research in Higher Education* 61 (2), S. 167–196. DOI: 10.1007/s11162-019-09558-8.

#### Abstract:

First-year seminars are frequently designed to help students adjust to and succeed in college. Although considerable literature has explored this topic, many previous studies may have notable problems with self-selection, since students who choose to participate are likely more motivated academically than those who do not. Therefore, this study used quasi-experimental analyses within a large, longitudinal, multi-institutional dataset to explore the link between seminar participation and several student success outcomes. Overall, the use of propensity score analyses substantially alters the results, such that first-year seminars are positively associated with first-year college satisfaction, but they have no effect on fourth-year satisfaction, college grades, retention, or four-year graduation within the full sample. This lack of impact is largely consistent regardless of whether the seminar is designed to engage students in academic inquiry or to promote orientation and academic success. Additional analyses observed some differential effects of first-year seminars by race/ethnicity, ACT score, and sex; the most consistent finding is that first-year seminars appear to promote the college grades and college satisfaction of Black students. Implications for future research and practice are discussed.

Czajkowski, Mikolaj; Gajderowicz, Tomasz; Giergiczny, Marek; Grotkowska, Gabriela; Sztandar-Sztanderska, Urszula (2020):

### Choosing the Future. Economic Preferences for Higher Education Using Discrete Choice Experiment Method.

In: *Research in Higher Education* 61 (4), S. 510–539. DOI: 10.1007/s11162-019-09572-w.

#### Abstract:

This study illustrates how respondents' stated choices (the discrete choice experiment method) combined with the random utility framework can be used to model preferences for higher education. The flexibility offered by stated preference data circumvents limitations of other approaches, and allows quantifying young people' preferences for selected attributes of higher education programs that are typically highly correlated in revealed preference data. The empirical study presented here is based on a survey of 20,000 Polish respondents aged 18–30, who stated their preferences for higher education programs in carefully prepared hypothetical choice situations. The attributes considered include tuition fee, expected

salary after graduation, quality of institution, interest in the field of study, distance from home, and mode of study. Using random parameters and latent class mixed multinomial logit models, young peoples' preferences are formally described, and the financial trade-offs they are willing to make are identified (willingness to pay for specific attribute levels in terms of increased tuition fees or expected salary after graduation). Accounting for respondents' observed and unobserved preference heterogeneity addresses a few research questions related to, for example, distinct preferences of students with parents who never attained tertiary education, students from lower socio-economic groups, or students of a particular gender. Overall, the usefulness of stated preference methods as a tool for exploring economic preferences is demonstrated, allowing for better understanding the determinants of choices, forecasting, and designing the services offered by higher education institutions in an optimal way.

Xu, Di; Solanki, Sabrina; Harlow, Ashley (2020):

### Examining the Relationship Between 2-year College Entry and Baccalaureate Aspirants' Academic and Labor Market Outcomes. Impacts, Heterogeneity, and Mechanisms.

In: *Research in Higher Education* 61 (3), S. 297–329. DOI: 10.1007/s11162-019-09559-7.

#### Abstract:

Using the Education Longitudinal Study of 2002 (ELS:2002), this paper analyzes students' baccalaureate attainment and early labor market performance, comparing 2-year college and 4-year institution entrants and exploring the potential heterogeneous treatment effects of initiating one's college experience in a 2-year college by individual pre-college academic preparation. Utilizing propensity score matching on a rich set of student demographic characteristics, academic and high school attributes, we find that 2-year college entry sharply reduces baccalaureate aspirants' likelihood of earning a baccalaureate, and such negative effects are particularly pronounced for students in the highest quartile of pre-college math ability. In terms of labor market outcomes, female 2-year college entrants are less likely to gain full-time employment, as compared to their female 4-year institution counterparts. We also examine various mechanisms that may hinder 2-year college entrants' baccalaureate completion, including the impact of 2-year college attendance on early academic progress, challenges of the transfer process, loss of credits at the point of transfer, and post-transfer academic shock. Our results provide suggestive evidence in support of all four mechanisms.

Durodoye Jr., Raifu; Gumpertz, Marcia; Wilson, Alyson; Griffith, Emily; Ahmad, Seher (2020):

### Tenure and Promotion Outcomes at Four Large Land Grant Universities. Examining the Role of Gender, Race, and Academic Discipline.

In: *Research in Higher Education* 61 (5), S. 628–651. DOI: 10.1007/s11162-019-09573-9.

#### Abstract:

Inclusion and diversity are highly visible priorities at many colleges and universities. Efforts to diversify the professoriate have necessitated a better understanding of career outcomes for current female faculty and faculty of color. We measure risk of leaving without tenure and years to promotion from associate to full professor at four large land grant universities. We model career outcomes as competing risks, and compute cumulative incidence functions to discern differences in tenure and promotion outcomes by gender and race. We find incidence rates vary significantly by academic discipline, and in many instances, show larger effects than gender and racial or ethnic differences. Our examination also indicates that in particular academic fields, females are more prone to leave without tenure, and less likely to be promoted to full professor. We also find that racial or ethnic minorities are less likely to be promoted to full professor in certain areas. The analysis suggests that for universities to address systemic issues of underrepresentation in academe, they must account for department level contexts, and align institutional practices to support the goal of inclusion and diversity.

Eckard, E. Woodrow (2020):

### The NCAA's Graduation Success Rate. How Successful Is It?

In: *Research in Higher Education* 61 (6), S. 780–793. DOI: 10.1007/s11162-020-09589-6.

*Abstract:*

The Graduation Success Rate (GSR) plays a critical role supporting the NCAA's Collegiate Model of amateur college athletics. The NCAA created the GSR to correct a statistical bias in the legally mandated Federal Graduation Rate (FGR) that causes it to underestimate rates. But the GSR's attempted correction causes it to overestimate rates. This paper reports the first estimate of the size of this statistical bias. The focus is on the big revenue sport of men's basketball in the so-called Power Conferences. The small size of basketball squads allows a reasonably accurate estimate of GSR cohort sizes based on publically available data. This in turn enables the calculation of a "corrected" GSR. The results indicate that the GSR exaggeration is large, perhaps as much as 20 percentage points. This raises fundamental questions about the success of the GSR as a useful graduation rate metric.

Elliott, Diane Cardenas; Lakin, Joni M. (2020):

### Running the STEM Gauntlet. The Complicity of Four-Year Universities in the Transfer Penalty.

In: *Research in Higher Education* 61 (4), S. 540–565. DOI: 10.1007/s11162-019-09586-4.

*Abstract:*

Students who transfer between institutions of higher education often experience a transfer penalty or a decrease in the odds of degree completion. While the transfer pathway is deemed a responsibility shared between 2- and 4-year institutions, failures in the transfer process are typically attributed to community colleges. The aim of this study was to examine the post-transfer experiences of STEM community college transfer students with particular emphasis placed on how institutional policies and practices at 4-year institutions contributed to the transfer penalty and poorer attainment rates of this population. Implications for future research and interventions are discussed.

Fagioli, Loris P.; Baker, Rachel; Orona, Gabe Avakian (2020):

### The Role of Non-cognitive Variables in Identifying Community College Students in Need of Targeted Supports.

In: *Research in Higher Education* 61 (6), S. 725–763. DOI: 10.1007/s11162-020-09588-7.

*Abstract:*

Non-academic characteristics and traits, such as academic self-efficacy and conscientiousness, have maintained the interest of higher education researchers for decades. A considerable amount of research has found that these non-cognitive variables (NCVs) are generally predictive of undergraduate success. However, most prior studies have focused on the use of NCVs in 4-year colleges, and understanding if and how these measures predict the academic trajectories of community college students has received less attention. As past work has indicated that NCVs are differentially predictive for students from different backgrounds, such an examination is needed. Drawing on data from two diverse community colleges, our study addresses this need by exploring if seven popular NCVs predict both short and longer-term student outcomes, how these measures are related to help-seeking behaviors, and their utility in identifying students at risk of serious academic failures. We find statistically significant relationships between NCVs and GPA outcomes but conclude that their practical utility appears trivial.

Favero, Nathan; Rutherford, Amanda (2020):

### Will the Tide Lift All Boats? Examining the Equity Effects of Performance Funding Policies in US Higher Education.

In: *Research in Higher Education* 61 (1), S. 1–25. DOI: 10.1007/s11162-019-09551-1.

*Abstract:*

This study considers whether performance funding policies systematically tend to harm some types of institutions of higher education while helping others. Building on theories of deck stacking and institutional stratification, a formal theoretical model of the effects of performance funding policies on individual institutions is developed and discussed. We find two types of likely policy effects—one which serves to improve overall institutional performance and another which exacerbates

unevenness among institutions in terms of quality. We then conduct an initial empirical test of our theory, analyzing a cross-sectional time-series dataset of colleges and universities in the U.S. Our findings are somewhat mixed. The adoption of performance funding policies appears to have the ability to boost overall average levels of degree production in some instances. However, performance funding 2.0 policies are also associated with larger variance in degree production rates. We find some evidence that 2.0 policies also have heterogeneous effects on graduation and retention rates, whereby the benefits of these policies disproportionately accrue to institutions already positioned to perform well.

Fitzpatrick, Dan (2020):

### Challenges Mitigating a Darwinian Application of Social Capital. How Specific Advising Activities by High School Counselors Shift Measures of College Readiness But Not College-Going.

In: *Research in Higher Education* 61 (5), S. 652–678. DOI: 10.1007/s11162-019-09575-7.

#### Abstract:

Low-income and racial minority students access college at lower rates than their more-advantaged peers, caused in part by lesser social capital. Low socio-economic status (SES) students' networks of rarely provide help navigating the application and enrollment process, preventing even academically-capable students from competing in the near-Darwinian process of college admission because of their low social capital. Research indicates that counselors can mediate SES-based disparities in college readiness but provides little guidance on how counselors should help students. I conduct multi-level logistic regression analyses of nationally representative longitudinal data to investigate (a) which specific advising activities impact college knowledge, eligibility, and enrollment, and (b) how impacts differ for underserved students. I find that the outcomes respond to different treatments. Creating an education plan in 9th grade increases students' likelihood of reaching college eligibility in math and annual review of plans increases the odds of planned Free Application for Federal Student Aid submission, with larger effects for underserved students. However, most marginal benefits are small and do not persist to become differences in college enrollment.

Gilpin, Gregory; Kofoed, Michael (2020):

### Employer-Sponsored Education Assistance and Graduate Program Choice, Cost, and Finance.

In: *Research in Higher Education* 61 (4), S. 431–458. DOI: 10.1007/s11162-019-09562-y.

#### Abstract:

This paper studies the impact of the Economic Growth and Tax Relief Reconciliation Act of 2001 that amended employer-sponsored education assistance (ESEA) fringe benefits from taxable to nontaxable for graduate studies. ESEA is an integral part of graduate education finance and is the dominant non-loan source of student aid. Using difference-in-difference and triple-difference specifications, we empirically evaluate educational outcomes related to graduate education choice, cost, and finance. The empirical results suggest that post-law reform, non-degree graduate students who exercise ESEA benefits are 12.3% more likely to attend open-admission institutions, 12.5% less likely to attend in-state, 10.3% more likely to attend for-profit colleges, and no changes are identified on cost or education debt loads, relative to their pre-law reform peers. As a whole, no differences in program choice are observed for degree-seeking graduate students. Additionally, the estimates suggest that while degree-seeking graduate students applying ESEA attend programs that cost, on average, 1170 more, no changes are identified post-law reform (2008 dollars). Furthermore, degree-seeking graduate students that apply ESEA benefits take out, on average, 1530 less in student loans, and this declines by an additional 1474 post-law reform (2008 dollars). Analysis by graduate program and also by gender and age suggest substantial heterogeneity from graduate program educational outcomes, especially for MBA students.

Gonzalez Canche, Manuel S. (2020):

### Community College Students Who Attained a 4-Year Degree Accrued Lower Student Loan Debt than 4-Year Entrants Over 2 Decades. Is a 10 Percent Debt Accumulation Reduction Worth the Added "Risk"? If So, for Whom?

In: *Research in Higher Education* 61 (7), S. 871–915. DOI: 10.1007/s11162-019-09565-9.

*Abstract:*

The study of student loan debt remains a timely and relevant higher education finance research and policy-oriented topic, especially when considering the alarming growth rates of student loan debt balances. The Quarterly Report on Household Debt and Credit released in May of 2018 shows that among all debt balances, student loans remain the only form of debt that virtually sextupled over the last 15-years, and this trend is not slowing down. Although aggregated trends are important, by definition they are limited in their capabilities to providing researchers, policy- and decision-makers with insights related to individual debt accumulation and, perhaps more importantly, with knowledge about the factors associated with variation of individual debt burden. Accordingly, the overarching goal of this study is to ameliorate this limitation in three meaningful ways. First, this is the first study that offers inferential estimates of the magnitude of student debt accumulation increase across two different decades (1991-2013) and institutional sectors (public 2- and 4-year colleges). Second, these estimates are based on student level undergraduate non-self-reported longitudinal loan debt disbursements. Third, the estimates not only account for individuals' baseline differences at the moment of college entry, but also account for institution- and state-level indicators that took place during college enrollment and that may be related to the variation of student loan debt reliance. Two nationally representative samples (NELS and ELS) complemented with other institution- and state-level data were analyzed using doubly robust estimators build from propensity score weights and entropy balancing approaches that were robust to unobservable selection issues using Oster's approach (J Bus Econ Stat 37(2):1-18, 2017). The results consistently indicated that, among all participants, student borrowing participation increased by 15 percentage points in the 2000s, compared to the 1990s, and individual debt accumulation at least doubled across decades. Notably, among 4-year degree holders, the 2-year path toward a 4-year degree consistently resulted in about 10% lower debt accumulation compared to the 4-year path toward a 4-year degree. Students who did not attain a 4-year degree were better served by having started college in the 2-year sector. In terms of overall debt increase, 4-year degree holders accrued about 8000 more on average than their counterparts did during the 1990s, however, the recent cohort also repaid about 11,000 more, on average (or three times as much), than participants did in the 1990s. These higher repayment behaviors observed among 4-year degree holders, resulted in similar amounts of their respective debt balances across decades. The implications are clear: students with higher propensities toward a 4-year degree attainment are likely to incur lower debt if they start college in the community college sector. However, before fully recommending this pathway, 2- and 4-year colleges' articulation agreements should be strengthened to ease transfer and eventual degree completion. Without recommending consolidation or merger between 2- and 4-year institutions, researchers and policy makers can learn from the strategies implemented by successful cases such as Perimeter College and Georgia State. Finally, 4-year entrants with lower likelihood to attain a 4-year degree may be better served by beginning college in the 2-year sector instead. Predictive analytics and machine learning techniques can be used to identify these cases, as depicted in the discussion section of the study.

Hirschl, Noah; Smith, Christian Michael (2020):

### Well-Placed. The Geography of Opportunity and High School Effects on College Attendance.

In: *Research in Higher Education* 61 (5), S. 567–587. DOI: 10.1007/s11162-020-09599-4.

*Abstract:*

Recent work has broadened the scope of school effectiveness research to consider not only academic achievement but also other outcomes, especially college attendance. This literature has argued that high schools are an important determinant of college attendance, with some contending that high schools matter more for college attendance than for academic achievement. A separate branch of research has illustrated how place-based opportunities facilitate college attendance. We merge these two literatures by asking if schools' geographic context can explain apparent variation in effectiveness among Wisconsin high schools. We find that geographic context explains more than a quarter of the variance in traditional estimates of school effectiveness on college attendance, because factors like proximity to colleges are strongly associated with college attendance. Accounting for geography is therefore important in order not to overstate high schools' role in higher education outcomes. Results are based on multilevel models applied to rich administrative data on every Wisconsin public high school entrant between 2006 and 2011.

Holzman, Brian; Klasik, Daniel; Baker, Rachel (2020):

### Gaps in the College Application Gauntlet.

In: *Research in Higher Education* 61 (7), S. 795–822. DOI: 10.1007/s11162-019-09566-8.



*Abstract:*

A large literature in higher education research has focused on disparities in rates of successful completion of the various steps along the path that leads to college enrollment (e.g. completing a college preparatory curriculum, taking the SAT or ACT, applying to a college) as an important source of inequitable college attainment between groups of students. In this study, we extend this prior work by explicitly examining race- and income-based gaps in these steps to college enrollment. Drawing on national- and state-representative samples from the High School Longitudinal Study of 2009, we use theV-statistic to calculate race- and income-based gaps in the completion of these steps. We have three main findings. First, we demonstrate that gaps calculated using theV-statistic method differ from gaps calculated using more traditional approaches leading to a new understanding of the size of these gaps. Second, among the steps we analyze, it appears that gaps in academic qualifications are large and similar in size to gaps in college application, admission, and enrollment. Finally, through regression analysis, we show that gaps in academic qualifications and gaps in taking a college entrance exam are the strongest predictors of gaps in the selectivity of eventual enrollment. Policymakers and practitioners interested in closing college enrollment gaps ought to identify interventions that specifically aim to address gaps identified by our analysis early in the postsecondary pathway.

Jeong, Soojeong; Litson, Kaylee; Blaney, Jennifer; Feldon, David F. (2020):

### Shifting Gears. Characteristics and Consequences of Latent Class Transitions in Doctoral Socialization.

In: *Research in Higher Education* 61 (8), S. 1027–1053. DOI: 10.1007/s11162-019-09583-7.

*Abstract:*

Using a national sample of 336 biology Ph.D. students, this study classified students based on their interactions with faculty and peers, and investigated longitudinal changes in their interaction classifications over 3 years. We also examined associations between students' interaction classifications, their demographic backgrounds (e.g., gender, international student status, first-generation status, and underrepresented racial/ethnic minority status), and doctoral outcomes (e.g., sense of belonging, satisfaction with academic development, institutional commitment, and scholarly productivity). The findings revealed that three distinct subgroups existed among the current sample of biology Ph.D. students, with respect to their interactions with their faculty and peers: high interaction with faculty and peers, high interaction with peers only, and low interaction with faculty and peers. However, such patterns of doctoral students' interactions with faculty and peers tended to, in general, be stable over time. In addition, while the differential effects of demographic variables on changes in these interaction patterns were widely founded, such changes were not substantially linked to doctoral student outcomes. Implications for research on doctoral education and socialization theory are discussed.

Kelchen, Robert (2020):

### Does the Bennett Hypothesis Hold in Professional Education? An Empirical Analysis.

In: *Research in Higher Education* 61 (3), S. 357–382. DOI: 10.1007/s11162-019-09557-9.

*Abstract:*

Policymakers have been debating the Bennett Hypothesis-whether colleges increase tuition after the federal government increases access to student loans-for decades. Yet most of the prior research has focused on studying small changes to loan limits or Pell Grants for undergraduate students. In this study, I examine whether business schools (the most popular master's program) and medical schools (one of the most-indebted programs) responded to a large increase in federal student loan limits in 2006 following the creation of the Grad PLUS program by raising tuition or living expenses as well as examining whether student debt burdens also increased. Using two quasi-experimental estimation strategies and program-level data from 2001 to 2016, I find little consistent evidence to support the Bennett Hypothesis in either medical or business schools.

Keung, Chrysa Pui Chi; Ho, Esther Sui Chu (2020):

### Structure and Agency in Adolescents' Expectations of Pursuing Post-secondary Education.

In: *Research in Higher Education* 61 (2), S. 270–295. DOI: 10.1007/s11162-019-09574-8.

*Abstract:*

Past studies have supported the view that parent background and family socioeconomic status determine the post-secondary educational expectations of adolescents. They build on Pierre Bourdieu's social reproduction theory, but do not fully explain why some adolescents aspire to post-secondary education and some do not. The capability approach adopted by Amartya Sen, uses the concept of agency to address such individual differences and 'capability to aspire' may explain educational transitions. The data for this study is drawn from PISA 2012 and its longitudinal extension study of adolescents in Hong Kong. Results of logistic regression analyses suggest that the reproduction effects through school socioeconomic composition and habitus pertaining to parental expectation are major factors shaping adolescents' expectations of pursuing a bachelor degree. However, agency factors, that is adolescents' own capabilities, after taking into account their differing family socioeconomic backgrounds, can strengthen their aspirations to pursue a bachelor degree. This combined approach and its implications for theory and practice, as well as the limitations of the study, are discussed.

Kim, Jeongeun; Ott, Molly; Dippold, Lindsey (2020):

### University and Department Influences on Scientists' Occupational Outcomes.

In: *Research in Higher Education* 61 (2), S. 197–228. DOI: 10.1007/s11162-019-09584-6.

*Abstract:*

Over 50,000 Ph.D. degrees in Science and Engineering (S&E) are awarded annually by United States (U.S.) universities, but few studies have systematically considered how the various aspects of doctoral training can influence the occupational outcomes of S&E doctoral graduates. This inquiry draws from the National Science Foundation's Scientists and Engineers Statistical Data System to investigate how the characteristics of U.S. degree-granting departments and institutions are associated with doctoral graduates' entrance into different career sectors (i.e., academia, industry, government). The conceptual framework is based on the Scientific and Technical Human Capital theory (Bozeman et al. in *Int J Technol Manag* 22(7–8):716–740, 2001) as well as Berger and Milem's (Higher Education: Handbook of Theory and Research, Agathon Press, New York, 2000) model of college impact. We find that a number of university and department factors are associated with the career choice of S&E doctoral graduates after finishing their Ph.D including: (a) structural characteristics, such as geographic location and faculty composition, (b) organizational behaviors, such as those symbolizing a program's relative emphasis on traditional academic work versus activities valued in industry, and (c) peer group characteristics such as a department's proportion of female and minority Ph.D. students. These results will be particularly informative for policy makers, faculty and administrators in S&E programs, and prospective doctoral students.

Kolesnikov, Alexei; Wang, Xiaoyin; Bonaduce, Michael; Cunningham, Mark; Fontinell, Lillian; Halliwell, Tyler; Twillman, Maura (2020):

### Imagine No Remediation. Evaluation of a Placement Policy Change.

In: *Research in Higher Education* 61 (7), S. 849–870. DOI: 10.1007/s11162-019-09568-6.

*Abstract:*

We describe the effects of a change in the mathematics placement policy at a large 4-year public university. The change resulted in a sharp reduction of the number of students placed in remedial courses, while the levels of academic preparedness of the students, the course content, and the instruction methods remained the same. This allows us to estimate the effects of remedial placement on the educational outcomes of the students. We find that a remedial placement policy that was based on a standardized test cut-score under-placed a large number of students into remedial courses. At the same time, we find that a placement policy based on BAT/CRT scores was placing under-prepared students into college level mathematics courses.

Kulp, Amanda M. (2020):

### Parenting on the Path to the Professoriate. A Focus on Graduate Student Mothers.

In: *Research in Higher Education* 61 (3), S. 408–429. DOI: 10.1007/s11162-019-09561-z.

*Abstract:*

This study presents new findings on tenure-track job outcomes for mothers who parented children during graduate school. Using NSF Survey of Earned Doctorates (2000-2005) and Survey of Doctorate Recipients data (2000-2013), I explore how PhD mothers' accumulation of career-related resources in graduate school influences their likelihood of attaining tenure-track jobs.

Lens, Dries; Levrau, Francois (2020):

### Can Pre-entry Characteristics Account for the Ethnic Attainment Gap? An Analysis of a Flemish University.

In: *Research in Higher Education* 61 (1), S. 26–50. DOI: 10.1007/s11162-019-09554-y.

*Abstract:*

Discussions about social justice imply discussions about higher education. After all, a whole set of literature has illustrated how ethnic minority students face all types of difficulties to become successful at college level. In line with this literature, the present research offers a case study of one Flemish University nested in a growing superdiverse environment. Based on unique administration data of four consecutive cohorts of first-year students, differences in academic attainment between ethnic minority and native students are examined. Through a two-step estimation strategy (i.e. linear regression and Blinder-Oaxaca decomposition) of five different groups (i.e. native students; Dutch students; EU students; Turkish and Moroccan students; and other non-EU students) we find that ethnic minority students do not enter higher education on the same conditions as natives. Ethnic minority students have significantly lower academic attainment than native students, after controlling for important pre-entry characteristics. Oaxaca-Blinder decompositions show that, while disparities between ethnic groups exist, differences in type of secondary education, parental education and first language learned as a child play a significant role in explaining the academic attainment gap. The pre-entry characteristics, however, explain only half of the attainment gap. Other research will have to clarify what type of factors can offer further explanation.

Mabel, Zachary (2020):

### Aiding or Dissuading? The Effects of Reducing Lifetime Eligibility Limits for Need-Based Aid on Bachelor's Degree Attainment and Time to Completion.

In: *Research in Higher Education* 61 (8), S. 966–1001. DOI: 10.1007/s11162-020-09600-0.

*Abstract:*

Little is known about the effects of need-based financial aid disbursed late into college and how students respond when they approach lifetime limits for receiving aid. I exploit changes to federal Pell Grant eligibility rules that reduced the lifetime availability for grant aid from 9 to 6 full-time-equivalent years to examine these questions. Using data from the University System of Georgia and a matched difference-in-differences research design, I compare student outcomes before versus after the rule change for Pell recipients affected and unaffected by the new policy. Risk of aid exhaustion due to the policy change led students to increase their academic effort, as measured by term-over-term re-enrollment and term credits attempted and earned. I find weak evidence that the policy change accelerated time to completion and no evidence that it increased or decreased degree attainment overall. These findings indicate that aid disbursement policies and lifetime aid limits can impact the cost-effectiveness of aid expenditures and the efficiency of college degree production.

Manly, Catherine A.; Wells, Ryan S.; Kommers, Suzan (2020):

### Who are Rural Students? How Definitions of Rurality Affect Research on College Completion.

In: *Research in Higher Education* 61 (6), S. 764–779. DOI: 10.1007/s11162-019-09556-w.

*Abstract:*

Given a revived national discourse about rural populations, more educational research on rural students is necessary, including ways that rural students transition to college and the success (or lack thereof) that they experience once there.

However, the National Center for Education Statistics (NCES) has changed the definition of rurality used in each iterative dataset over the last few decades, casting doubt on the consistency of what is meant by the term rural. The purpose of this study is to: (a) communicate to the educational research audience various ways of defining rural students, and specifically how NCES has changed their definition of rurality over their last three major data collections; (b) demonstrate how conclusions about rural students' and their college degree completion may differ based on these alternate NCES definitions; and (c) discuss how this specific example using NCES data relates to the wider landscape of research on rural students. Results show that conclusions about college degree completion change depending on the definition of rurality used for analysis. Therefore, the education research community should consider the options for defining rural students, report transparently about the choices made, consider the sensitivity of results to the definition of rurality, and ultimately build a more robust body of literature concerning rural students' college success. Gaining definitional clarity will be beneficial, particularly for those who wish to translate their research into practical action for the benefit of rural students.

Miller, Graham N. S. (2020):

### I'll Know One When I See It. Using Social Network Analysis to Define Comprehensive Institutions Through Organizational Identity.

In: *Research in Higher Education* 61 (1), S. 51–87. DOI: 10.1007/s11162-019-09552-0.

#### Abstract:

Comprehensive institutions (CIs) have long been characterized as middling universities with a confused identity and purpose. Yet, their historical origins demonstrate that they have served as an important point of access into higher education for marginalized student groups. Still, there remains little consensus over which institutions are CIs and what organizational characteristics are associated with being an CI. This study uses novel data on institutional comparison groups and a network approach to determine which institutions other U.S. colleges and universities define as CIs. The analysis provides a method for detecting culturally-defined organizational categories and clarifies the definition of a CI. Creating analytical clarity about which institutions are CIs has important implications for future research on these institutions and for policy that affects these institutions.

Minaya, Veronica (2020):

### Do Differential Grading Standards Across Fields Matter for Major Choice? Evidence from a Policy Change in Florida.

In: *Research in Higher Education* 61 (8), S. 943–965. DOI: 10.1007/s11162-020-09606-8.

#### Abstract:

Grading standards in college vary substantially across fields, especially among STEM fields that tend to give lower grades than non-STEM fields. Prior research has demonstrated that grades affect course and major choices, but less is known about how policies oriented to reduce differences in grading standards across fields affect persistence and completion in the major of choice. Using administrative data from the Florida Department of Education, this paper examines the effect of changing the grading scale from whole-letter grades to plus/minus grades on STEM major choice. It relies on a difference-in-difference framework that compares students' outcomes before and after a grade policy change at two institutions to similar students at other institutions over the same time period. I find that a change in the grading scale significantly reduces grading differentials across fields and increases the likelihood of students graduating with a STEM degree. Although results should be interpreted cautiously given the limitations of the data, they represent the first direct, quasi-experimental evidence regarding the effect of a grade scale change on STEM major choice.

Mitic, Radomir Ray (2020):

### Global Learning for Local Serving. Establishing the Links Between Study Abroad and Post-college Volunteering.

In: *Research in Higher Education* 61 (5), S. 603–627. DOI: 10.1007/s11162-020-09604-w.

*Abstract:*

This study contributes new evidence on the factors associated with undergraduate study abroad participation and post-college volunteering. Drawing on Education Longitudinal Study 2002-2012 data, this study analyzes how students' ascribed characteristics, academic achievement, college environment, and participation in study abroad are associated with students' likelihood to volunteer after college. Grounded in human capital and status attainment theories, this study employs Astin's Inputs-Environment-Outcomes framework to isolate study abroad as a high-impact education practice associated with post-college volunteering. Controlling for service-learning, previous volunteering experience, and selection bias for study abroad using inverse propensity of treatment weighting (IPTW), this study provides some of the clearest evidence that study abroad is an educational experience that promotes democratic outcomes. For study abroad program providers, these results suggest that more intentional methods of engendering a desire to improve the local situation upon returning home can further promote civic engagement. On a larger scale, these results provide some relief to the worry that American higher education is not adequately preparing students for democratic citizenship while drawing attention to the fact that only a small subset of the undergraduate population participates in study abroad to receive these benefits.

Moore, Joann L.; Cruce, Ty M. (2020):

### The Impact of an Interest-Major Fit Signal on College Major Certainty.

In: *Research in Higher Education* 61 (3), S. 383–407. DOI: 10.1007/s11162-019-09560-0.

*Abstract:*

Students' choice of college major is related to their interests (Porter and Umbach in *Res High Educ* 47:429-449, 2006), and students whose major is well-aligned with their interests are more likely to persist in that major (Allen and Robbins in *Res Higher Educ* 49(1):62-79, 2008) and complete a college degree in a timely manner (Allen and Robbins in *J Couns Psychol* 51(1):23-35, 2010). This study investigates whether a specific signal (i.e., Low, Medium, or High fit) that high school students receive about the alignment between their initial choice of planned major and their measured interests has an impact on the subsequent certainty of their initial choice of planned major. A regression discontinuity design was used to investigate the stability/increase in planned major certainty across two ACT administrations for students with Medium versus Low fit and High versus Medium fit. Results did not provide evidence that the signal is effective; possible explanations and recommended future research are discussed.

Park, Julie J.; Kim, Young K.; Salazar, Cinthya; Hayes, Shannon (2020):

### Student-Faculty Interaction and Discrimination from Faculty in STEM. The Link with Retention.

In: *Research in Higher Education* 61 (3), S. 330–356. DOI: 10.1007/s11162-019-09564-w.

*Abstract:*

Previous studies have documented student-faculty interaction in STEM, but fewer studies have specifically studied negative forms of interaction such as discrimination from faculty. Using a sample of 562 STEM undergraduates from the National Longitudinal Survey of Freshmen, we use hierarchical generalized linear modeling to investigate various types of student-faculty interaction in Science, Technology, Engineering, and Math (STEM) and in particular, the link between discrimination from faculty and retention in STEM. While Black students interacted more frequently with faculty, they were also most likely to report experiencing racial/ethnic discrimination. Overall, female, Black, and Latinx students were more likely to leave STEM by the fourth year of college than male, White, and Asian American peers. Feeling that professors made a student feel uncomfortable due to race/ethnicity was negatively linked with STEM retention. None of the traditional forms of student-faculty interaction (i.e., non-discriminatory) predicted retention. Variation in patterns by race, gender, and income are discussed, as well as implications for research, policy, and practice.

Pike, Gary R.; Robbins, Kirsten R. (2020):

### Using Panel Data to Identify the Effects of Institutional Characteristics, Cohort Characteristics, and Institutional Actions on Graduation Rates.

In: *Research in Higher Education* 61 (4), S. 485–509. DOI: 10.1007/s11162-019-09567-7.

*Abstract:*

Institutional graduation rates occupy a prominent place in institutional research and public policy. Graduation rates are used in the College Scorecard, state performance funding initiatives, and potentially affect a significant proportion of public institutions' revenues. Despite their widespread use, research suggests that institutional graduation rates are most strongly related to students' entering characteristics and stable institutional characteristics, but are only weakly related to characteristics institutions can directly control. One set of institutional characteristics that appears to be related to graduation rates are expenditures for instruction, academic support, student services, and institutional support. However, inconsistencies in research findings raise the possibility that estimates of the effects of expenditures on graduation rates may be biased due to omitted variables (i.e., unobserved heterogeneity). The present research uses within-/between-effects panel data models with IPEDS panel data to account for omitted variable bias and examine the effects of institutional characteristics, cohort characteristics, and institutional expenditures on graduation rates.

Pu, Shi; Yan, Yu; Zhang, Liang (2020):

### Peers, Study Effort, and Academic Performance in College Education. Evidence from Randomly Assigned Roommates in a Flipped Classroom.

In: *Research in Higher Education* 61 (2), S. 248–269. DOI: 10.1007/s11162-019-09571-x.

*Abstract:*

This study provides empirical evidence related to two critical assumptions in the student engagement literature in higher education—namely, the malleability of study effort and the causality of the relationship between study effort and student outcomes. We merged student-level administrative data on dormitory assignments, study effort in a hybrid course, and course performance from a regional college in China. Our results indicate that study efforts are more similar for a pair of randomly assigned roommates than for a pair of randomly assigned non-roommates, indicating the malleability of study effort. In addition, we provide evidence on the causal relationship between study effort and academic performance by using roommates' study efforts as an instrumental variable when estimating the effect of a student's study effort on course performance.

Rocconi, Louis M.; Dumford, Amber D.; Butler, Brenna (2020):

### Examining the Meaning of Vague Quantifiers in Higher Education. How Often is “Often”?

In: *Research in Higher Education* 61 (2), S. 229–247. DOI: 10.1007/s11162-020-09587-8.

*Abstract:*

Researchers, assessment professionals, and faculty in higher education increasingly depend on survey data from students to make pivotal curricular and programmatic decisions. The surveys collecting these data often require students to judge frequency (e.g., how often), quantity (e.g., how much), or intensity (e.g., how strongly). The response options given for these questions are usually vague and include responses such as “never,” “sometimes,” and “often.” However, the meaning that respondents give to these vague responses may vary. This study aims to determine the efficacy of using vague quantifiers in survey research. More specifically, the purpose of this study is to explore the meaning that respondents ascribe to vague response options and whether or not those meanings vary by student characteristics. Results from this study indicate a high degree of correspondence between vague and numeric response and suggest that students seem to adapt the meaning of “sometimes,” “often,” and “very often” based on the appropriate reference for the question. Overall, findings provide evidence of the utility and appropriateness of using vague response options. Some differences by student characteristics and the implications of these differences are discussed.

Rucks-Ahidiana, Zawadi; Bork, Rachel Hare (2020):

### How Relationships Support and Inform the Transition to Community College.

In: *Research in Higher Education* 61 (5), S. 588–602. DOI: 10.1007/s11162-020-09601-z.

*Abstract:*

The prior literature on relationships and the transition to college largely documents either the relationships college students at 4-year institutions have on-campus who provide information or relationships they have off-campus who provide support. Using a unique dataset of interviews with 96 first-year community college students, this paper compares the roles of on- and off-campus relationships in information and support provision to understand whether both provide information and support, and how the information and support they provide varies. We find that (1) because on-campus relationships are predominately distant, they provide general and impersonal information about policies and procedures and very little support, while (2) off-campus relationships, which are predominately close, provide personal insight and personalized information in addition to support and motivation. The findings demonstrate that community college students' on- and off-campus relationships are complementary in providing insight into policies and procedures at the college, a sense of belonging on campus, and personal and personalized advice and support for their college goals.

Sanabria, Tanya; Penner, Andrew; Domina, Thurston (2020):

### Failing at Remediation? College Remedial Coursetaking, Failure and Long-Term Student Outcomes.

In: *Research in Higher Education* 61 (4), S. 459–484. DOI: 10.1007/s11162-020-09590-z.

*Abstract:*

Colleges offer remedial coursework to help students enrolling in post-secondary education who are not adequately prepared to succeed in college-level courses. Despite the prevalence of remediation, previous research presents contradictory findings regarding its short- and long-term effects. This paper uses a doubly robust inverse probability weighting strategy to examine whether the degree completion and wage outcomes associated with remedial education vary by passing or failing remedial coursework. Using the NLSY Postsecondary Transcript-1997 data, we find that almost 30% of remedial course takers fail a remedial course. Students who took and passed their remedial coursework at both 2-year and 4-year colleges were more likely to graduate from college than similar students who did not take remediation. For both 2-year and 4-year college entrants, students who failed remedial coursework were less likely to obtain a bachelor's degree and, among degree receivers, took longer to graduate. Students who entered 2-year or 4-year colleges and who failed remedial coursework earned lower wages over time compared to similar students who never took remediation. Among 4-year college entrants, these wage differences seem to be explained completely by degree completion. However, wage differences for 2-year college entrants still remain after accounting for degree receipt. Our findings thus suggest that while many students may benefit from remedial education, a substantial number of students struggle with remedial coursework and fail to realize the intended benefits.

Simonsmeier, Bianca A.; Peiffer, Henrike; Flaig, Maja; Schneider, Michael (2020):

### Peer Feedback Improves Students' Academic Self-Concept in Higher Education.

In: *Research in Higher Education* 61 (6), S. 706–724. DOI: 10.1007/s11162-020-09591-y.

*Abstract:*

Peer feedback has been shown to be an effective strategy to improve academic achievement. However, little evidence is available about the effects of peer feedback on academic outcomes other than achievement, such as academic self-concept (ASC). ASC and achievement are reciprocally related and thus mutual reinforce themselves. The present study focuses on the effect of a four week long structured web-based peer feedback intervention on ASC in the domain of academic writing as a part of a seminar assignment in a sample of undergraduate psychology students. The study investigated the effectiveness with 49 students in a randomized-controlled trial with a pre-and post-test. Each student acted as an author and a reviewer. Results indicated significant improvements in ASC for the domain of academic writing over time as compared to a control group. Furthermore, the causal effect of peer feedback compared to no feedback on ASC for academic writing was strong with  $d = 0.72$ . The effect was domain specific, as the ASCs for the sub-domains statistics and language remained unchanged by the intervention. Overall, the results revealed that participation in a peer feedback system is an effective method to enhance ASC in the context of higher education.

Tieben, Nicole (2020):

### Non-completion, Transfer, and Dropout of Traditional and Non-traditional Students in Germany.

In: *Research in Higher Education* 61 (1), S. 117–141. DOI: 10.1007/s11162-019-09553-z.

#### Abstract:

A considerable proportion of students in Germany has graduated from vocational training before entering higher education. With this paper we examined how these students progress through higher education. We argue that successful graduation is the result of a sequence of decisions and decompose the trajectories through higher education to distinguish non-completion, transfer and dropout. We used the German Educational Panel Study (NEPS-SC6), a retrospective life course study, and applied logistic regression models. Our results suggest that students with vocational qualifications are slightly more likely to graduate from the initially chosen program than traditional students, but this advantage diminishes after controlling individual and institutional characteristics. After non-completion of the initially chosen program, the traditional students are more likely to remain in higher education and transfer to another program, whereas students with vocational certificates rather choose to leave higher education. Taking the entire trajectory together, our bivariate analyses reveal a slightly higher risk of leaving higher education without graduation among the students with pre-tertiary vocational training. Again, this association disappears in models that control for individual and institutional characteristics.

Wang, Cong; Zhang, Ying; Moss, Jennifer D.; Bonem, Emily M.; Levesque-Bristol, Chantal (2020):

### Multilevel Factors Affecting College Students' Perceived Knowledge Transferability. From the Perspective of Self-Determination Theory.

In: *Research in Higher Education* 61 (8), S. 1002–1026. DOI: 10.1007/s11162-020-09592-x.

#### Abstract:

Promoting students' ability to transfer or apply their knowledge and skills to real-life situations is critical in higher education. The current study was designed to test the likelihood that the constructs based on self-determination theory (SDT) framework help understand college students' perceived knowledge transferability. A total of 3783 undergraduates from 301 classes participated in this study. The results of a series of multilevel modeling analyses indicated that (a) competence satisfaction and identification were the most salient factors influencing students' perceived knowledge transferability; (b) the SDT-related variables together explained 64.2% of the between-student variance in perceived knowledge transferability; (c) after controlling for student-level covariates and SDT-related variables, 7.9% of the variance in perceived knowledge transferability was caused by between-class differences, and 19.6% of it could be explained by course fields and course levels. Our results, which provide evidence of multilevel factors influencing college students' perceived knowledge transferability, have implications for promoting transfer in higher education.

Weisser, Reinhard A. (2020):

### How Personality Shapes Study Location Choices.

In: *Research in Higher Education* 61 (1), S. 88–116. DOI: 10.1007/s11162-019-09550-2.

#### Abstract:

In this paper I investigate undergraduate students' discrete location choices in presence of a plethora of potential destinations and psychic costs. I demonstrate how enrolment into institutions of tertiary education is influenced by personality and social preferences. More importantly, these individual traits are found to affect the valuation of location-specific conditions in alternative study locations. Eventually, the relevance of location attributes, such as urban or labour market characteristics, varies substantially with respect to distance and individuals' personality. This has direct implications for student recruitment, since prospective students display distinct geographic sorting patterns along these traits: students featuring higher levels of patience integrate post-graduation opportunities into their decision-making. As a consequence, institutions in economically less prosperous regions might attract a specific subset of the overall student population, which might also have repercussions on student performance.



White, Peter M.; Lee, David M. (2020):

### Geographic Inequalities and Access to Higher Education. Is the Proximity to Higher Education Institution Associated with the Probability of Attendance in England?

In: *Research in Higher Education* 61 (7), S. 825–848. DOI: 10.1007/s11162-019-09563-x.

#### Abstract:

The relationship between geography and the selection of university is well documented and suggests that a student's location substantially limits their choice of institution. However, there are few studies investigating the interplay between geography and the decision to attend university, particularly in the UK. This study aims to establish if distance to university is associated with the probability of enrolling in higher education in England and forms the quantitative half of a mixed-methods study on the subject. An ordinal logistic regression analysis of HESA enrollment data, which controls for deprivation, is employed. The investigation uses average direct measures of distance between each census area and university campus in England to determine the relationship between distance and enrollment. The findings suggest that geographical distance to university has a negative association with university enrollment. Students within the 10 km measure had a significantly increased odds of enrolling at university than students in the 40 km and above category (odds ratio 10.89; 95% CI 1-2), when controlling for deprivation and population density. It is hoped that the findings of this research will help to raise awareness of geographical inequalities and inform policy on university access.

## Specials

Holzman, Brian; Klasik, Daniel; Baker, Rachel (2020):

### Correction to: Gaps in the College Application Gauntlet.

[Correction]. In: *Research in Higher Education* 61 (7), S. 823–824. DOI: 10.1007/s11162-019-09577-5.

#### Abstract:

The original version of this article contain errors. The authors would like to correct the errors as given below: [...]

## Editorials

Breschi, Stefano; Lawson, Cornelia; Lissoni, Francesco; Morrison, Andrea; Salter, Ammon (2020):

STEM migration, research, and innovation.

[Editorial]. In: *Research Policy* 49 (9, SI), S. 104070. DOI: 10.1016/j.respol.2020.104070.

## Original Articles

Allard, Gayle; Williams, Christopher (2020):

National-level innovation in Africa.

In: *Research Policy* 49 (7), S. 104074. DOI: 10.1016/j.respol.2020.104074.

*Abstract:*

Why are some African nations moving ahead in innovation? We develop seven hypotheses for what determines national-level innovation in Africa using seven well established lines of argumentation grouped into two distinct policy areas: international and domestic. The international policy areas are trade arrangements (benefits from economic integration), export specialization (resource curse problem) and inward migration (social capital spillovers). The domestic policy areas are education (investment in human capital), control of corruption (institutional quality), financial inclusion ('reaching the unbanked') and internet usage (closing the digital divide). Testing these hypotheses on a unique dataset collated from diverse secondary sources and representing up to 39 African countries, we find that trade arrangements and financial inclusion are the most consistent predictors while the remaining arguments find inconsistent or no support. Exploratory analysis reveals two pathways to innovation in Africa: one internationally oriented, based on trade arrangements for relatively poorer countries, and the other domestically oriented, based on financial inclusion for relatively higher-income countries. The relevance of our findings for policy makers and research is discussed.

Allen, Darcy W. E.; Berg, Chris; Markey-Towler, Brendan; Novak, Mikayla; Potts, Jason (2020):

Blockchain and the evolution of institutional technologies. Implications for innovation policy.

In: *Research Policy* 49 (1), S. 103865. DOI: 10.1016/j.respol.2019.103865.

*Abstract:*

For the past century economists have proposed a suite of theories relating to industrial dynamics, technological change and innovation. There has been an implication in these models that the institutional environment is stable. However, a new class of institutional technologies-most notably blockchain technology-lower the cost of institutional entrepreneurship along these margins, propelling a process of institutional evolution. This presents a new type of innovation process, applicable to the formation and development of institutions for economic governance and coordination. This paper develops a replicator dynamic model of institutional innovation and proposes some implications of this innovation for innovation policy. Given the influence of public policies on transaction costs and associated institutional choices, it is indicated that policy settings conducive to the adoption and use of blockchain technology would elicit entrepreneurial

experiments in institutional forms harnessing new coordinative possibilities in economic exchange. Conceptualisation of blockchain-related public policy an innovation policy in its own right has significant implications for the operation and understanding of open innovation systems in a globalised context.

Alperovych, Yan; Groh, Alexander; Quas, Anita (2020):

**Bridging the equity gap for young innovative companies. The design of effective government venture capital fund programs.**

In: *Research Policy* 49 (10, SI), S. 104051. DOI: 10.1016/j.respol.2020.104051.

*Abstract:*

Governmental venture capital funds (GVCs) are created by policymakers around the world to support young innovative companies (YICs) with the aim of “bridging the equity gap”. In this paper, we study the heterogeneity in the design of GVC programs in Europe and identify the design features that are most effective in achieving the desired outcomes of this policy. Specifically, we focus on the probability that GVC-backed companies will receive additional funds from private venture capital investors and, ultimately, changes in their growth and innovation outcomes. We find that the choices of location, colocation, syndication and industry focus of a GVC program substantially influence the extent to which it is able to achieve such goals. Important policy implications are discussed.

Anckaert, Paul-Emmanuel; Cassiman, David; Cassiman, Bruno (2020):

**Fostering practice-oriented and use-inspired science in biomedical research.**

In: *Research Policy* 49 (2), S. 103900. DOI: 10.1016/j.respol.2019.103900.

*Abstract:*

In contexts where the abstract and predictive outcomes of theory-driven research from the lab provide little insight for solving practical problems, use-inspired research is argued to shape advances in science by leading more directly to practice-oriented outcomes. We show that in the biomedical sector, basic research conducted by clinical scientists is significantly more likely to exploit prior insights from the applied literature, and triggers relatively more applied and industrial follow-on research compared to a sample of randomly matched articles. However, clinical scientists’ engagement in the development of this type of practice-oriented and use-inspired basic research is limited due to the intensity of their clinical obligations and patient care. The allocation of a unique fellowship that partly releases these clinical scientists from their clinical burden fosters the development of practice-oriented and use-inspired basic science. These clinical scientists tend to publish more and shift their focus towards the development of scientific basic research that integrates insights from bench and bedside.

Andersen, Kristina Vaarst; Frederiksen, Marianne Harbo; Knudsen, Mette Praest; Krabbe, Anders Dahl (2020):

**The strategic responses of start-ups to regulatory constraints in the nascent drone market.**

In: *Research Policy* 49 (10, SI), S. 104055. DOI: 10.1016/j.respol.2020.104055.

*Abstract:*

Some start-ups treat regulatory constraints as exogenous and beyond their control, while other start-ups treat regulatory constraints as endogenous and possible to influence. However, thus far, no explanation has been offered for why start-ups differ in their responses to regulatory constraints. Based on 49 interviews with start-ups and other industry actors this paper examines start-ups’ responses to regulatory constraints in the market for drone applications. We find that variation in start-ups’ responses is instigated by start-ups’ temporal orientation. Start-ups pursuing applications targeted at present markets or future potential markets treat regulation as exogenous. In contrast, start-ups that pursue market applications bridging current and future potential markets are more likely to treat regulation as endogenous.

Andries, Petra; Hünermund, Paul (2020):

**Firm-level effects of staged investments in innovation. The moderating role of resource availability.**

In: *Research Policy* 49 (7), S. 103994. DOI: 10.1016/j.respol.2020.103994.

**Abstract:**

Integrating insights on firms' resource availability with bounded rationality and real options arguments, we propose that resource-abundant and resource-constrained firms reap different effects from a staged approach to innovation. We argue that resource availability triggers overoptimism and managerial discretion, and thereby impedes adequate resource reallocation in staged innovation projects, leading to different effects of staging at the firm level. An empirical analysis of 2,790 German firms confirms that a staged investment approach leads to a higher number of newly started and abandoned innovation projects in resource-abundant firms than in resource-constrained firms. Supplementary analyses suggest that this is indeed because resource-abundant firms demonstrate more overoptimism and managerial discretion. We discuss implications for the real options literature, as well as managerial implications for innovation investment decisions.

Ascani, Andrea; Bettarelli, Luca; Resmini, Laura; Balland, Pierre-Alexandre (2020):

**Global networks, local specialisation and regional patterns of innovation.**

In: *Research Policy* 49 (8), S. 104031. DOI: 10.1016/j.respol.2020.104031.

**Abstract:**

A large academic consensus exists on the idea that successful innovative processes are geographically bounded within regions. Nevertheless, the ability of regions to capture and re-use external knowledge is also regarded as a fundamental element to sustain and refine the local profile of specialisation and competitiveness. The present article combines these views to investigate the sources of the regional innovation process, by analysing data on Italian regions over the period 2007-2012. We define global networks based on all the local firms identifiable as global ultimate owners and their foreign subsidiaries. Our main results suggest that both the internal specialisation and the regional external linkages can generate indigenous innovation, but the role of the networks varies substantially according to its density, its degree of complementarity with the specialisation profile, its geographical spread and the specific location of the foreign subsidiaries. Our results, then, support a view of the regional innovation as an interactive process whereby valuable knowledge resources are not only generated within the reach of the local economy, but they are also integrated with external inputs. This contrasts with recent anti-globalisation views according to which the increase in the foreign operations of national companies impoverishes the local economy.

Audretsch, David; Colombelli, Alessandra; Grilli, Luca; Minola, Tommaso; Rasmussen, Einar (2020):

**Innovative start-ups and policy initiatives.**

In: *Research Policy* 49 (10, SI), S. 104027. DOI: 10.1016/j.respol.2020.104027.

**Abstract:**

Innovative start-ups can create and shape new industries and generate considerable economic and societal impacts. Accordingly, a variety of policy initiatives are aimed at promoting the establishment, growth and impact of innovative start-ups. Designing such policies is a challenging task, because most start-ups fail. In addition, only a small share of those start-ups will ultimately prove to be innovative, and very few of those will eventually become high impact firms. Hence, effective policies require a better understanding of the processes by which innovative start-ups are formed, developed and create impact, as well as of the heterogeneous nature inherent to innovative start-ups along with their development trajectory. This article reviews 39 policy initiatives from around the world and classifies their approaches to the phenomenon of innovative start-ups. By relying on insights from the papers mentioned in this special issue, we develop a process framework by elaborating on (i) the antecedents of the creation of innovative start-ups, (ii) their founding characteristics, (iii) their behavior, and finally (iv) the outputs and impacts generated by them. Our framework highlights how policy initiatives, managerial issues and research approaches are conceptually different, depending on the specific stage of firm development. We conclude with implications for policy initiatives and further research.

Bahar, Dany; Choudhury, Prithwiraj; Rapoport, Hillel (2020):

**Migrant inventors and the technological advantage of nations.**

In: *Research Policy* 49 (9, SI), S. 103947. DOI: 10.1016/j.respol.2020.103947.

*Abstract:*

We investigate the relationship between the presence of migrant inventors and the dynamics of innovation in the migrants' receiving countries. We find that countries are 25 to 60% more likely to gain advantage in patenting in certain technologies given a twofold increase in the number of foreign inventors from other nations that specialize in those same technologies. For the average country in our sample, this number corresponds to only 25 inventors and a standard deviation of 135. We deal with endogeneity concerns by using historical migration networks to instrument for stocks of migrant inventors. Our results generalize the evidence of previous studies that show how migrant inventors "import" knowledge from their home countries, which translates into higher patenting in the receiving countries. We interpret these results as tangible evidence of migrants facilitating the technology-specific diffusion of knowledge across nations.

Baker, Agnes; Goodall, Amanda H. (2020):

**Feline followers and "umbrella carriers". Department Chairs' influence on faculty job satisfaction and quit intentions.**

In: *Research Policy* 49 (4), S. 103955. DOI: 10.1016/j.respol.2020.103955.

*Abstract:*

Management quality at the department level is central to research and teaching performance in universities. This paper investigates the influence of department Chairs (hybrid middle managers) on faculty job satisfaction, satisfaction with job characteristics, and intentions to leave. Using UK and Swedish data, we provide the first evidence that faculty who rate their Chairs as being distinguished researchers report higher overall job satisfaction, satisfaction with job characteristics, and lower quit intentions. The perceived research strength of the Chair has the single largest statistical influence on faculty job satisfaction. This result holds after controlling for a large number of other influences and after employing a range of methods to correct for issues such as a potential single-rater bias. Although the primary contribution of this paper is empirical, we build on the expert leadership literature, appeal to social identity theory, and utilise the newly established concept of "umbrella carrier": we suggest that Chairs who are strong researchers may shelter subordinate faculty from excessive managerial spillovers, and protect academics' research time, thereby creating more favourable job characteristics. The paper's results highlight the benefits of good management in universities at a time when job satisfaction is in decline.

Barbieri, Nicole; Marzucchi, Alberto; Rizzo, Ugo (2020):

**Knowledge sources and impacts on subsequent inventions. Do green technologies differ from non-green ones?**

In: *Research Policy* 49 (2), S. 103901. DOI: 10.1016/j.respol.2019.103901.

*Abstract:*

The paper investigates the nature and impact of green technological change. We focus on the search and impact spaces of green inventions: we explore the knowledge recombination processes leading to the generation of inventions and their impact on subsequent technological developments. Using a large sample of patents, filed during the period 1980-2012, we employ established patent indicators to capture the complexity, novelty and impact of the invention process. Technological heterogeneity is controlled for by comparing green and non-green technologies within narrow technological domains. We find that green technologies are more complex and appear to be more novel than non-green technologies. In addition, they have a larger and more pervasive impact on subsequent inventions. The larger spillovers of green technologies are explained only partially by novelty and complexity.

Baruffaldi, Stefano H.; Marino, Marianna; Visentin, Fabiana (2020):

### Money to move. The effect on researchers of an international mobility grant.

In: *Research Policy* 49 (8), S. 104077. DOI: 10.1016/j.respol.2020.104077.

#### Abstract:

We examine the impact of a grant program promoting international mobility on researchers' scientific outcomes and careers. To provide causal evidence, we exploit unique data from the Swiss National Foundation and implement a Regression Discontinuity Design analysis. We find that the grant effectively supports periods of research abroad that often extend beyond the duration of the grant, without increasing the probability of permanent migration. Awarded researchers increase their output quality, although the effect on output quantity and careers is not significant. Additional evidence suggests that financing international mobility likely affects output quality by reducing the cost of exploring new collaboration opportunities and research topics: awarded applicants are more likely to collaborate with new coauthors of higher, on average, scientific quality and rely less on their previous own research results. Moreover, the grants mainly benefit researchers receiving a mobility grant for the first time.

Baruffaldi, Stefano H.; Simeth, Markus (2020):

### Patents and knowledge diffusion. The effect of early disclosure.

In: *Research Policy* 49 (4), S. 103927. DOI: 10.1016/j.respol.2020.103927.

#### Abstract:

We study how the timing of information disclosure affects the diffusion of codified technical information. On November 29, 2000, the American Inventors Protection Act (AIPA) reduced the default publication time of patents at the United States Patent and Trademark Office (USPTO) to 18 months. We analyze the effects of this change by means of a regression discontinuity design with time as an assignment variable and a complementary difference-in-differences analysis. Our study shows that information flows from patents measured by forward citations, increased. Interestingly, the degree of localization within geographic boundaries remained unchanged and technological localization even increased moderately. Moreover, the effect of early disclosure on citations from patents filed by patent attorney service firms is particularly strong. These results imply that knowledge diffusion stemming from speedier disclosure of technical information is confined to the existing attention scope and absorptive capacity of inventors and organizations.

Bathelt, Harald; Li, Pengfei (2020):

### Processes of building cross-border knowledge pipelines.

In: *Research Policy* 49 (3), S. 103928. DOI: 10.1016/j.respol.2020.103928.

#### Abstract:

Two classic perspectives of knowledge generation across space can be distinguished: one that focuses on localized knowledge networks in communities or clusters and another that investigates how innovation is linked to global knowledge networks of multinational enterprises. The former view has been prevalent in economic geography, the latter in international business. By integrating both perspectives, this paper focuses on the processes of how firms extend their knowledge networks from local to global settings. It develops a four-stage model of building cross-border knowledge pipelines, involving site selection, cross-border knowledge facilitation, local embedding, and cross-border knowledge generation. The model emphasizes the significant role of knowledge facilitators in building cross-border knowledge pipelines and is substantiated in a typical case study of Canadian firms in China.

Bekkers, Rudi; Martinelli, Arianna; Tamagni, Federico (2020):

### The impact of including standards-related documentation in patent prior art. Evidence from an EPO policy change.

In: *Research Policy* 49 (7), S. 104007. DOI: 10.1016/j.respol.2020.104007.

*Abstract:*

It is crucial that patent offices grant protection only to those inventions that are novel and non-obvious. In 2004, the European Patent Office (EPO) made the unique move to systematically extend its prior art database by including documents shared among members of standard-setting organisations, but not made available to the general audience. This paper investigates the effects of this policy change. We find that it worked thanks to a significant reduction in granting rates rather than reducing the scope of granted patents. Our study demonstrates how a targeted approach can improve the quality of the patent granting process.

Beltagui, Ahmad; Rosli, Ainurul; Candi, Marina (2020):

### Exaptation in a digital innovation ecosystem. The disruptive impacts of 3D printing.

In: *Research Policy* 49 (1), S. 103833. DOI: 10.1016/j.respol.2019.103833.

*Abstract:*

This research investigates disruptive innovation through the under-explored relationship between two ecological concepts, exaptation and ecosystems. Exaptation-driven innovation involves exploiting unintended latent functions of pre-existing technologies. Digital innovation ecosystems account for industry-spanning co-operative and competitive dynamics among firms related to innovations that combine physical and digital elements, such as 3D printing. In this work the evolution of the 3D printing ecosystem is traced over four decades, from the first patents-presented as exaptation-driven innovations-to the present threat of disruption to established manufacturing. Through a longitudinal narrative study of the formation and growth of this ecosystem, a four-phase process model is developed. This addresses gaps in the exaptation and disruptive innovation literatures with respect to innovation ecosystems. The implications for theory are that disruption requires an appropriate supporting ecosystem, but ecosystems take on a life of their own, so cultivating a healthy ecosystem means sowing the seeds of disruption within that ecosystem. For practice, this research highlights the managerial challenges of predicting disruption by exaptation-driven innovations and the constant competition for niches within ecosystems. For policy, it outlines implications concerning how best to support new innovation ecosystems and cultivate exaptation opportunities.

Borras, Susana; Edler, Jakob (2020):

### The roles of the state in the governance of socio-technical systems' transformation.

In: *Research Policy* 49 (5), S. 103971. DOI: 10.1016/j.respol.2020.103971.

*Abstract:*

The transformative turn of innovation policy has resulted in calls for a more entrepreneurial and directional role of the state. However, the multiple roles that the state might play remains underexplored. This paper studies the embedded role of the state in four distinct modes of governance of socio-technical systems. Using a three-pillar analytical model, the paper examines four illustrative cases: cryptocurrencies, smart cities, automated vehicles, and nuclear power. The paper identifies 13 different roles of the state: observer, warner, mitigator, opportunist, facilitator, lead-user, enabler of societal engagement, gatekeeper, promoter, moderator, initiator, guarantor and watchdog. The conceptualization of these roles serves to understand that the transformative agency of the state is leveraged/constrained by the modes of governance, and that it is also ultimately exercised through specific mixes of roles.

Bozeman, Barry; Youtie, Jan; Jung, Jiwon (2020):

### Robotic Bureaucracy and Administrative Burden. What Are the Effects of Universities' Computer Automated Research Grants Management Systems?

In: *Research Policy* 49 (6), S. 103980. DOI: 10.1016/j.respol.2020.103980.

*Abstract:*

Our paper seeks to understand effects of computerized approaches to university research grants and contracts management, especially impacts on administrative burden. Ours is a multi-method paper, including interviews with academic researchers but focuses chiefly on participant-observer research, using hundreds of our own emails from two

projects located at two different universities. We find that robotic emails have complex effects and that their utility pertains to researchers' familiarity with the systems and compliance requirements, the clarity of administrative requests, the extent and location of staff support, and the interaction of personal work habits with system requirements. We provide suggestions for improving automated research administration.

Breschi, Stefano; Lawson, Cornelia; Lissoni, Francesco; Morrison, Andrea; Salter, Ammon (2020):

STEM migration, research, and innovation.

[Editorial]. In: *Research Policy* 49 (9, SI), S. 104070. DOI: 10.1016/j.respol.2020.104070.

Brixy, Udo; Brunow, Stephan; D'Ambrosio, Anna (2020):

The unlikely encounter. Is ethnic diversity in start-ups associated with innovation?

In: *Research Policy* 49 (4), S. 103950. DOI: 10.1016/j.respol.2020.103950.

*Abstract:*

Several studies have sought evidence as to whether ethnically diverse teams promote a diversity in knowledge and perspectives which is beneficial for innovation. In multicultural societies, however, there are multiple opportunities for exchange between people from different ethnic backgrounds, and the extent to which such encounters actually imply cognitive diversity seems debatable. We propose to regard as diverse those combinations of ethnic backgrounds that are relatively unlikely to occur under a hypothesis of random allocation to firms, based on the distribution of nationalities at NUTS3 level. We label this measure "unusualness" and apply it to the study of innovation in newly founded firms in Germany. Our results reveal that unusualness has a robust positive association with the probability of a start-up introducing an innovation within the first two years of business, while diversity as measured by a standard Blau index is insignificant. The results are robust to a large set of robustness checks. We interpret these results as an indication that not all combinations of national origins matter for innovation, but only those that are associated with differences in cognitive approaches and knowledge.

Bruneel, Johan; Clarysse, Bart; Bobelyn, Annelies; Wright, Mike (2020):

Liquidity events and VC-backed academic spin-offs. The role of search alliances.

In: *Research Policy* 49 (10, SI), S. 104035. DOI: 10.1016/j.respol.2020.104035.

*Abstract:*

Despite the emergent importance of liquidity events (IPOs and trade sales) as performance indicators for VC-backed academic spin-offs, empirical research on the drivers of liquidity events relating to such spin-offs has been limited. In adopting a search perspective, we analyze how different alliance types impact on VC-backed academic spin-offs' chances of realizing a liquidity event. We find that market search alliances increase a spinoff's likelihood of a liquidity event, whereas technology search alliances reduce this likelihood. However, the latter effect is mitigated when the spin-off has a founding team with prior market experience. We explore the implications for practice and policy of the development and success of VC-backed academic spin-offs.

Bruns, Stephan B.; Kalthaus, Martin (2020):

Flexibility in the selection of patent counts. Implications for p-hacking and evidence-based policymaking.

In: *Research Policy* 49 (1), S. 103877. DOI: 10.1016/j.respol.2019.103877.



*Abstract:*

This study analyzes how researchers' degrees of freedom in selecting patent counts influence econometrically estimated policy effects. Using the evaluation of solar energy policies as an example, we identify 51 strategies to select solar patents from the literature resulting in 306 different solar patent counts, considering six common quality levels of patents. We replicate two leading studies in this literature and re-estimate their econometric models using all of these patent counts. Our results demonstrate severe uncertainty regarding sizes and even signs of key policy effects, opening up the potential for p-hacking and posing a fundamental challenge for evidence-based policymaking. We recommend that more emphasis should be devoted to patent selection procedures, including careful sensitivity analysis regarding key assumptions, such as search strategy and patent quality level. More research is needed to develop common quality standards in working with patent data.

Bryan, Kevin A.; Ozcan, Yasin; Sampat, Bhaven (2020):

### In-text patent citations. A user's guide.

In: *Research Policy* 49 (4), S. 103946. DOI: 10.1016/j.respol.2020.103946.

*Abstract:*

We introduce, validate, and make publicly available a new data source for innovation research: scientific references in patent specifications. These references are common and algorithmically extractable. Critically, they are very different from the "front page" prior art commonly used to proxy for inventor knowledge. Only 24% of front page citations to academic articles are in the patent text, and 31% of in-text citations are on the front page. We explain these differences by describing the legal rules and practice governing citation. Empirical validations suggest that in-text citations are qualitatively different. Further, there is suggestive evidence that they more accurately proxy for knowledge flows, consistent with their legal role.

Bryce, Cormac; Dowling, Michael; Lucey, Brian (2020):

### The journal quality perception gap.

In: *Research Policy* 49 (5), S. 103957. DOI: 10.1016/j.respol.2020.103957.

*Abstract:*

We explore the drivers of researchers' perceptions around journal quality, and how these perceptions converge or diverge with national journal ranking systems. Prior to the release of the Academic Journal Guide (AJG) 2018 rankings list, we surveyed UK business school researchers, resulting in 19,597 individual journal rankings. We find a notable journal quality perception gap, with 39% of subjective rankings from the business and management community differing from the AJG 2018 rankings. We show that measures of personal connection to the AJG system have strong explanatory power. These factors include the usage of, and sentiment towards, the AJG list, as well as individual research success as measured by AJG rankings. Consistently, we find that high values for these factors narrow the quality perception gap, whereas low values widen it. We also find an increase in the quality perception gap for journals that a respondent has submitted to or reviewed for. Our research, thus, provides new insights into how researchers interact with journal ranking systems. We propose how researchers, business schools, and ranking bodies can incorporate these findings to improve stakeholders' consensus on research quality assessment.

Buenstorf, Guido; Heinisch, Dominik P. (2020):

### When do firms get ideas from hiring PhDs?

In: *Research Policy* 49 (3), S. 103913. DOI: 10.1016/j.respol.2019.103913.

*Abstract:*

Hiring new PhDs allows firms to access recent scientific advances. We develop new measures based on correlated topic models to estimate the similarity of patents and dissertations, and apply these measures to PhD-invented firm patents in the German laser industry. Patents are more exploratory for the firm if the underlying dissertation work is less similar to the firm's prior knowledge stock. Patents filed prior to dissertation submission are more exploratory. PhD-invented patents did not become less exploratory when Germany adopted university ownership in academic inventions.

Buffart, Mickael; Croidieu, Gregoire; Kim, Phillip H.; Bowman, Ray (2020):

Even winners need to learn. How government entrepreneurship programs can support innovative ventures.

In: *Research Policy* 49 (10, SI), S. 104052. DOI: 10.1016/j.respol.2020.104052.

*Abstract:*

Given the investment of public resources for supporting entrepreneurial growth, it is important to know whether such programs truly benefit innovative ventures. While prior research has indicated some benefits for growth outcomes, there is no clear consensus about the conditions for program effectiveness. We attribute this to the complex set of selection and treatment mechanisms associated with how programs navigate interlocking tradeoffs to maximize outcomes with their limited resources. To circumvent these challenges, policymakers often default to a “picking winners” approach based on past performance indicators. We develop and implement a carefully designed empirical strategy to determine whether this approach leads innovative ventures to achieve growth milestones and properly accounts for various observed and unobserved selection issues. We analyze data from the Small Business Development Center (SBDC), a government-sponsored program in the United States. Using a potential outcomes framework to investigate over 1,700 ventures that enrolled in SBDC advisory services from 2011 to 2016, we observe that treatment design is more crucial than selection for innovative firms to achieve growth. We found that treatment time and a client’s willingness to learn collaboratively from their advisors are vital indicators of growth. Since treatment effectiveness is driven by support allocation, programs that desire to boost innovation outcomes must at a minimum formally prioritize innovation criteria to ensure these businesses receive sufficient support to address their growth objectives. Beyond this, we demonstrate that support effectiveness additionally depends on a willingness of participants to learn collaboratively by socializing their growth objectives with their advisors. Since even winners need to learn, programs must wrestle with the selection tradeoffs more acutely early on to ensure that the most promising clients can receive lengthier learning opportunities for growth.

Buttice, Vincenzo; Caviggioli, Federico; Franzoni, Chiara; Scellato, Giuseppe; Strykowski, Piotr; Thumm, Nikolaus (2020):

Counterfeiting in digital technologies. An empirical analysis of the economic performance and innovative activities of affected companies.

In: *Research Policy* 49 (5), S. 103959. DOI: 10.1016/j.respol.2020.103959.

*Abstract:*

This study analyses empirically the effects of counterfeiting on the economic and innovation performance of firms, exploiting a novel and unique dataset that integrates information on custom seizures worldwide during years 2011-2013 with financial accounting data, patent and trademark data for a sample of digital technology companies. We apply diff-in-diff models using a large control sample of non-affected firms. Results provide robust evidence that counterfeiting is associated to a negative impact on operative margins of affected companies, relative to the control sample. The analysis does not find conclusive evidence on the effects of counterfeiting on the innovation activities of affected companies. We find no evidence in support of the hypothesis that counterfeiting could also exert an indirect positive effect on the sales of genuine goods.

Cainelli, Giulio; D’Amato, Alessio; Mazzanti, Massimiliano (2020):

Resource efficient eco-innovations for a circular economy. Evidence from EU firms.

In: *Research Policy* 49 (1), S. 103827. DOI: 10.1016/j.respol.2019.103827.

*Abstract:*

Innovation adoption and diffusion by firms are key pillars for the EU strategy on resource efficiency and the development of a circular economy. This paper presents new EU evidence regarding the role of environmental policy and green demand drivers to sustain the adoption of resource efficiency-oriented eco-innovations. Using a large cross-section dataset of EU firms and accounting for sample selection and endogeneity, the results strongly support the idea that environmental policy and demand-side factors are both significant in driving the adoption of innovations that promote recycling, reduce waste and decrease the use of materials. The paper provides a relevant piece of new, quantitative-based knowledge, which complements the large case study-based evidence on sound management and policy strategies for the circular economy.

Caliendo, Marco; Kuenn, Steffen; Weissenberger, Martin (2020):

**Catching up or lagging behind? The long-term business and innovation potential of subsidized start-ups out of unemployment.**

In: *Research Policy* 49 (10, SI), S. 104053. DOI: 10.1016/j.respol.2020.104053.

*Abstract:*

From an active labor market policy perspective, start-up subsidies for unemployed individuals are very effective in improving long-term labor market outcomes for participants. From a business perspective, however, the assessment of these public programs is less clear since they might attract individuals with low entrepreneurial abilities and produce businesses with low survival rates and little contribution to job creation, economic growth, and innovation. In this paper, we use a rich data set to compare participants of a German start-up subsidy program for unemployed individuals to a group of regular founders who started from non-unemployment and did not receive the subsidy. The data allows us to analyze their business performance up until 40 months after business formation. We find that formerly subsidized founders lag behind not only in survival and job creation, but especially also in innovation activities. The gaps in these business outcomes are relatively constant or even widening over time. Hence, we do not see any indication of catching up in the longer run. While the gap in survival can be entirely explained by initial differences in observable start-up characteristics, the gap in business development remains and seems to be the result of restricted access to capital as well as differential business strategies and dynamics. Considering these conflicting results for the assessment of the subsidy program from an ALMP and business perspective, policy makers need to carefully weigh the costs and benefits of such a strategy to find the right policy mix.

Chaturvedi, Tuhin; Prescott, John E. (2020):

**Dynamic fit in an Era of Ferment. Product Design Realignment and the Survival-enhancing role of Alliances and Acquisitions.**

In: *Research Policy* 49 (6), S. 103989. DOI: 10.1016/j.respol.2020.103989.

*Abstract:*

We propose that in an era of ferment, when a firm's product design does not possess the features of the evolving dominant design, it faces a feature implementation gap defined as 'the number of features of the evolving product dominant design that are absent from a firm's product design'. Employing the performance feedback perspective of the behavioral theory of the firm, we conceptualize a feature implementation gap as a manifestation of an aspiration-performance gap that negatively affects a firm's likelihood of product market survival due to a product market 'lock-out'. To dynamically improve the alignment of their product designs with the evolving dominant design and increase their likelihood of product market survival, we suggest that firms engage in problematic search using alliances and acquisitions to decrease the feature implementation gap. We found strong support for our predictions using a longitudinally dynamic mediation model with data from an era of ferment in the digital camera product market between 1997-2004. Our study extends the behavioral theory of the firm to a novel context - eras of ferment. It demonstrates that in this context, problemistic search involved dual search modes- short-run search at the individual feature level and long-run search at the design level. It also shows the utility of adopting a demand-side (i.e. product market or customer based) perspective to explain how firms improve their likelihood of product market survival during eras of ferment. In this, it complements recent research that has examined how firms' internal actions affect product design realignment processes and firm outcomes in eras of ferment.

Chen, I-Ju; Hsu, Po-Hsuan; Officer, Micah S.; Wang, Yanzhi (2020):

**The Oscar goes to... High-tech firms' acquisitions in response to rivals' technology breakthroughs.**

In: *Research Policy* 49 (7), S. 104078. DOI: 10.1016/j.respol.2020.104078.

*Abstract:*

We examine how firms react to their competitors' highly publicized technology breakthroughs measured by the renowned R&D 100 Award. These awards have been granted to top 100 technological inventions every year since 1965 and have come to be known as the "Oscar of Invention" (e.g., Verhoeven et al., 2016). We find that a firm's propensity to acquire another firm significantly increases after its competitors win these awards. A causal interpretation of our finding is supported by instrumental variable analysis, coarsened exact matched samples, and differential effects of award winners vs. finalists. Such award-driven acquisitiveness is more pronounced among firms with more confident CEOs or in industries

with a shorter technology lifecycle and a higher R&D intensity. Moreover, the acquirers with rivals winning awards pursue innovative targets whose products overlap with those rivals, confirming these acquirers' catch-up purpose.

Chen, Min-Nan; Wu, Chia-Hung (2020):

### Complementary-in use appropriability in innovative service firms. An empirical study in Taiwan.

In: *Research Policy* 49 (7), S. 104014. DOI: 10.1016/j.respol.2020.104014.

#### *Abstract:*

This study investigated that innovative service firms adopt complementary-in use appropriability strategies in response to loose appropriability conditions. We used two features, i.e., appropriability breadth and appropriability depth, to examine different modes of complementary-in use appropriability strategies. We categorized 307 innovative service firms using a two-stage clustering analysis to identify distinct appropriability modes. The following four appropriability modes of complementary-in use appropriability strategies are identified: (1) complementary-based appropriability mode, (2) formal-based appropriability mode, (3) informal-based appropriability mode, and (4) low-profile appropriability mode. We revealed that complementary-in use appropriability strategies under loose appropriability conditions are appropriability modes adopted by innovative service firms that vary in appropriability breadth and appropriability depth. Appropriability breadth was significantly associated with the choice of appropriability modes. In addition, we revealed that innovative service firms' choice of the modes of complementary-in use appropriability strategies varies by the firm characteristics. Finally, policy implications for enhancing innovation protection and value appropriation in service firms and sectors are discussed.

Chen, Sheng-Syan; Chen, Yan-Shing; Liang, Woan-lih; Wang, Yanzhi (2020):

### Public R&D spending and cross-sectional stock returns.

In: *Research Policy* 49 (1), S. 103887. DOI: 10.1016/j.respol.2019.103887.

#### *Abstract:*

Empirical findings on the economic benefits of public research and development (R&D) spending are mixed. We adopt an alternative approach by examining the effect of public R&D spending on stock returns. We find that firms located in states with a greater amount of public R&D spending earn higher abnormal stock returns. The effect persists after accounting for conventional pricing factors and state-level variables, and becomes stronger for firms with greater absorptive capabilities. The abnormal stock returns are not only related to the positive effects of public R&D on firm productivity and incoming spillovers, but are also related to the increased cash flow risk. Policymakers should consider both risk and return effects when making any changes in public R&D investment.

Cherunya, Pauline C.; Ahlborg, Helene; Truffer, Bernhard (2020):

### Anchoring innovations in oscillating domestic spaces. Why sanitation service offerings fail in informal settlements.

In: *Research Policy* 49 (1), S. 103841. DOI: 10.1016/j.respol.2019.103841.

#### *Abstract:*

A persistent conundrum for practitioners and researchers in the development context is that, often, newly provided and improved basic services are not maintained by users despite seemingly superior functionality and user convenience. We argue that one major reason for this is an insufficient understanding of the context in which users have to manage their daily lives. We therefore propose an approach to analysing the embedding of basic services that focuses on the users' daily practices. We do so by borrowing insights from 'socio-technical transitions' and 'practice theory' in developing our concept of oscillating domestic spaces. The concept reflects the need for people to constantly respond to quickly changing and precarious circumstances by rearranging their daily practices in time and space and developing a multiplicity of alternative options and partial solutions. We illustrate the analytical approach in a case study of sanitation access in informal settlements of Nairobi, Kenya. The analysis shows how the introduction of a container-based toilet resulted in partial embedding. The innovation anchored to only a part of the oscillating domestic spaces and was in disarray with the needs of

users most of the time. The conceptual approach contributes to the understanding about how users take part in sustainability transitions as well as the added value of the time-space dimension in analysing practices in highly complex contexts. We conclude by reflecting on the potential applicability of the analytical approach to transition cases in the Global North.

Cirera, Xavier; Muzi, Silvia (2020):

### Measuring innovation using firm-level surveys. Evidence from developing countries.

In: *Research Policy* 49 (3), S. 103912. DOI: 10.1016/j.respol.2019.103912.

#### *Abstract:*

Understanding innovation in developing countries has been substantially constrained by the lack of comparable and reliable data. Collecting data on firm-level innovation is challenging because of the difficulties to operationalize the definition of innovation, the subjective judgement calls that respondents are required to make because of this, and because what constitutes innovation may be considered differently across different country contexts. These challenges may lead to serious issues in innovation measurement. This paper contributes to the literature on measurement of innovation by uncovering significant differences in self-reporting innovation rates likely to result in mismeasurement. The first finding is that measures of innovation varies across survey instruments. Second, key elements explaining these differences are related to both framing issues and cognitive issues. Minimizing differences and potentially mismeasurement issues, therefore, requires ensuring good quality interviews but also facilitating good and consistent understanding of what is an innovation. Adding questions that collect more details describing innovation is critical to identifying inconsistencies in responses. While, the focus is on developing countries; the results of the study are also relevant to other countries and the overall literature on innovation survey design.

Cisnetto, Valentina; Barlow, James (2020):

### The development of complex and controversial innovations. Genetically modified mosquitoes for malaria eradication.

In: *Research Policy* 49 (3), S. 103917. DOI: 10.1016/j.respol.2019.103917.

#### *Abstract:*

When there is significant uncertainty in an innovation project, research literature suggests that strictly sequencing actions and stages may not be an appropriate mode of project management. We use a longitudinal process approach and qualitative system dynamics modelling to study the development of genetically modified (GM) mosquitoes for malaria eradication in an African country. Our data were collected in real time, from early scientific research to deployment of the first prototype mosquitoes in the field. The 'gene drive' technology for modifying the mosquitoes is highly complex and controversial due to risks associated with its characteristics as a living, self-replicating technology. We show that in this case the innovation journey is linear and highly structured, but also embedded within a wider system of adoption that displays emergent behaviour. Although the need to control risks associated with the technology imposes a linearity to the NPD process, there are possibilities for deviation from a more structured sequence of stages. This arises from the effects of feedback loops in the wider system of evidence creation and learning at the population and governance levels, which cumulatively impact on acceptance of the innovation. The NPD and adoption processes are therefore closely intertwined, meaning that the endpoint for R&D and beginning of 'mainstream' adoption and diffusion are unclear. A key challenge for those responsible for NPD and its regulation is to plan for the adoption of the technology while simultaneously conducting its scientific and technical development.

Civera, Alice; Lehmann, Erik E.; Paleari, Stefano; Stockinger, Sarah A. E. (2020):

### Higher education policy. Why hope for quality when rewarding quantity?

In: *Research Policy* 49 (8), S. 104083. DOI: 10.1016/j.respol.2020.104083.

*Abstract:*

This paper analyses the impact of the Excellence Initiative (EI) in Germany, a policy intervention aimed to promote and select outstanding active research universities by competitively allocating additional public funds. Academic debate on efficiency and effectiveness of higher education policy does not address issues such as treatment and selection effects, suffers from generalizable measurement problems, and does not take a comparative approach. Our objective is to fill this gap by adopting Italy as a control country. In doing so, this paper examines (1) whether this policy approach is suitable to stimulate the system and the awarded institutions, (2) how the performance impact can be measured and (3) whether the results are driven by country specific effects or are generalizable. To this end, we applied a triple difference-in-differences analysis (DDD) on a dataset of 72 German and 51 Italian state universities during the first round of the EI, from 2004 to 2013. We found that the EI has had a positive effect on research quantity, but a reverse effect on research quality.

Clo, Stefano; Florio, Massimo; Rentocchini, Francesco (2020):

**Firm ownership, quality of government and innovation. Evidence from patenting in the telecommunication industry.**

In: *Research Policy* 49 (5), S. 103960. DOI: 10.1016/j.respol.2020.103960.

*Abstract:*

Despite the wave of privatisation in recent decades, enterprises under government control still account for a large part of assets and employment in several countries and particularly continue to play a key role in certain network industries. We explore the potential role of State-Invested Enterprises (SIEs) as investors in innovation, with particular interest in that played by the institutional environment. We focus on the telecommunication industry, which has been affected by fundamental technological and organisational change, including liberalisation and privatisation, over the last decades but where public ownership still retains a major role. We draw on a longitudinal data set of 706 telecom companies from 91 countries over the 2007-2015 period and show that public ownership is positively correlated to patenting activity. We also find that - for both state-invested and private companies - improvements in institutional quality are positively associated with firm-level patenting, and that such a relation is stronger under public ownership. We offer an interpretation of these findings which shed new light on the role of SIEs as patient investors.

Cojoianu, Theodor F.; Clark, Gordon L.; Hoepner, Andreas G. F.; Veneri, Paolo; Wojcik, Dariusz (2020):

**Entrepreneurs for a low carbon world. How environmental knowledge and policy shape the creation and financing of green start-ups.**

In: *Research Policy* 49 (6), S. 103988. DOI: 10.1016/j.respol.2020.103988.

*Abstract:*

We investigate how different types of environmental policies and new regional environmental knowledge affect new venture creation in and financing of green (low carbon), brown (fossil fuel) and gray (unrelated to natural resources) technologies across 24 OECD countries and 293 regions over the period 2001-13. We find that new regional environmental knowledge positively impacts new venture creation in green technologies, and moderately in gray industries. Gray industries also benefit from enhanced start-up financing in regions where new environmental knowledge is created, confirming that environmental knowledge creation yields positive externalities beyond the green sector. We also find that a more stringent environmental policy regime negatively impacts the creation of new ventures across sectors, but most prominently, it discourages new fossil fuel ventures. However, once entrepreneurs decide to start a new business, stringent environmental policies have on aggregate a positive effect on new venture financing across sectors, particularly through feed-in-tariffs and emission standards.

Colombelli, Alessandra; Grilli, Luca; Minola, Tommaso; Mrkajic, Boris (2020):

**To what extent do young innovative companies take advantage of policy support to enact innovation appropriation mechanisms?**

In: *Research Policy* 49 (10, SI), 2019.05.006. DOI: 10.1016/j.respol.2019.05.006.

*Abstract:*

Innovative entrepreneurship is at the heart of economic development in all modern economic systems. However, we observe in several developed countries - especially Europe - a languishing in the capacity to foster creative destruction (i.e. Schumpeter Mark 1, SM1) dynamics and to create young innovative companies (YICs), capable to establish themselves as leaders in markets or become successful innovators. One key issue that is often advocated in this respect is the deficit suffered from YICs in fully protecting their innovations and appropriating (at least in part) returns from them. The usage of formal (e.g., intellectual property rights) and informal (e.g., secrecy, lead time, access to complementary assets) instruments to protect intellectual property assets has the potential to overcome this difficulty. Different types of policy mechanisms have been put in place to help YICs. However, high implicit and explicit costs and barriers prevent YICs' use of protection strategies, limiting the ability to generate SM1 dynamics or accessing market for ideas, even upon policy support. By relying on the resource-based view of the firm, our paper investigates to what extent a comprehensive set of policy measures recently introduced in the Italian context and focused on alleviating the hurdles suffered by YICs is associated with the choice of YICs to protect their innovations. The econometric analyses based on more than 1,600 Italian YICs show how the use of financial policy measures are associated to both formal and informal instruments, while labour policy measures are only related to formal ones.

Colombo, Massimo G.; Piva, Evila (2020):

**Start-ups launched by recent STEM university graduates. The impact of university education on entrepreneurial entry.**

In: *Research Policy* 49 (6), S. 103993. DOI: 10.1016/j.respol.2020.103993.

*Abstract:*

University education is a crucial source of human capital and influences graduates' choice of entrepreneurship as a career. Here, we discuss the contrasting effects on recent graduates' entrepreneurial entry of the type and quality of the human capital developed through university education in STEM fields. We determine which effects prevail by examining the graduates who obtained a Master of Science degree in the period 2005-2009 from Politecnico di Milano. A university curriculum specialized into a limited number of scientific and technical fields, training in economics and management, and the scientific quality of the university in the research fields pertinent to the graduate's degree programme are positively associated with entrepreneurial entry immediately after graduation, while the graduation grade is not. The graduation grade and the scientific quality of the university positively moderate the impact of curriculum specialization. These effects weaken over time, but are still relevant five years after graduation.

Confraria, Hugo; Wang, Lili (2020):

**Medical research versus disease burden in Africa.**

In: *Research Policy* 49 (3), S. 103916. DOI: 10.1016/j.respol.2019.103916.

*Abstract:*

Africa is a continent facing severe, urgent, and often unique health challenges. At the same time, in most African countries, national research funding is very limited and research systems are usually dependant on international research funding and collaboration. Therefore, in this context, there are worries that foreign partners will dominate medical research agendas, which may take research away from being relevant to specific local health needs. In this article, we investigate whether the distribution of medical research priorities and investment in medical research, across diseases in Africa, is related to the disease burden of local populations between 2006 and 2015. Our results show that, although African medical research capacity is still very weak and greatly dependant on public non-African and philanthropic funders, medical research specialisation in sub-Saharan Africa is generally associated with its disease burden. Our results are interesting because they indicate that although there are misalignments at the global level between research priorities and disease burden in absolute terms, in sub-Saharan Africa, there is no clear trade-off between participating in global research networks and producing medical research that is aligned with local health needs.

Craig, Russell; Cox, Adam; Tourish, Dennis; Thorpe, Alistair (2020):

### Using retracted journal articles in psychology to understand research misconduct in the social sciences. What is to be done?

In: *Research Policy* 49 (4), S. 103930. DOI: 10.1016/j.respol.2020.103930.

#### *Abstract:*

This paper explores the nature and impact of research misconduct in psychology by analyzing 160 articles that were retracted from prominent scholarly journals between 1998 and 2017. We compare findings with recent studies of retracted papers in economics, and business and management, to profile practices that are likely to be problematic in cognate social science disciplines. In psychology, the principal reason for retraction was data fabrication. Retractions took longer to make, and generally were from higher ranked and more prestigious journals, than in the two cognate disciplines. We recommend that journal editors should be more forthcoming in the reasons they provide for article retractions. We also recommend that the discipline of psychology gives a greater priority to the publication of replication studies; initiates a debate about how to respond to failed replications; adopts a more critical attitude to the importance of attaining statistical significance; discourages p-hacking and Hypothesizing After Results are Known (HARKing); assesses the long-term effects of pre-registering research; and supports stronger procedures to attest to the authenticity of data in research papers. Our contribution locates these issues in the context of a growing crisis of confidence in the value of social science research. We also challenge individual researchers to reassert the primacy of disinterested academic inquiry above pressures that can lead to an erosion of scholarly integrity.

Crown, Daniel; Faggian, Alessandra; Corcoran, Jonathan (2020):

### Foreign-Born graduates and innovation. Evidence from an Australian skilled visa program.

In: *Research Policy* 49 (9, SI), S. 103945. DOI: 10.1016/j.respol.2020.103945.

#### *Abstract:*

This paper estimates the effect of a skilled visa program that permits foreign-born graduates from Australian universities the right to temporarily live and work in Australia post-graduation on regional innovation outcomes. Our analysis combines data on innovation measures at the regional level with administrative data from the full population of approved Temporary Graduate visa applications. The empirical strategy accounts for the potential bias introduced by skilled foreign-born students sorting into innovative regions by using an instrumental variables strategy. Results show a positive impact of the visa program on the number of patent applications, indicating a positive impact of the skilled immigration visa program on regional innovation. We find no impact of the Temporary Graduate Visa program on the number of design rights or trademarks.

Cucculelli, Marco; Peruzzi, Valentina (2020):

### Innovation over the industry life-cycle. Does ownership matter?

In: *Research Policy* 49 (1), S. 103878. DOI: 10.1016/j.respol.2019.103878.

#### *Abstract:*

This paper considers the impact of firm ownership on innovation over the industry life-cycle. By analyzing a sample of 9602 European manufacturing firms, we first confirm established evidence that firms focus on product-oriented innovation during the growth stage of the industry life-cycle, and on process-oriented innovation during maturity. When firm ownership is taken into account, we find that this pattern is strongly reversed by the shifts from growth to maturity, but only for family firms, as these firms are significantly more prone to introduce risky product innovations during maturity. Controls for firm size, financial resources and other firm-specific variables, together with an explicit consideration of managerial ability, help in rejecting the hypothesis that family firms rely on product innovation for the inferior ability to manage process and organizational innovation. In addition, we find that the adoption of risky product innovation during maturity is mainly associated with family ownership, not management. By contrast, family management favors risk-avoiding behavior, except in the case of experienced family CEOs.



D'Adderio, Luciana; Pollock, Neil (2020):

**Making routines the same. Crafting similarity and singularity in routines transfer.**

In: *Research Policy* 49 (8), S. 104029. DOI: 10.1016/j.respol.2020.104029.

*Abstract:*

Building on theoretical advances in Routine Dynamics, complemented by insights from Science and Technology Studies, we conduct an in-depth, longitudinal inquiry into how organizations are able to (re)create the 'same' routine not despite but within a pervasive background of difference and multiplicity. We draw on a three-year ethnographic study of the exact transfer of a high-end computer and production facility at a leading US technology organization to show how routines are enacted into being the same. In contrast with the literature, which sees replication as the one-directional implementation of an accessible and available origin template at destination, we theorize transfer as the simultaneous co-creation of routines across multiple sites. In so doing, we show how routines similarity and singularity are the (emergent, skilful, effortful and temporary) outcomes of repairing and distributing practices, and their sociomaterial assemblages, which coordinate multiple enactments of the routine within and across locations. These micro-level practices underpin routines emergence and persistence as well as acting as the basis for the emergence of dynamic capabilities.

Deichmann, Dirk; Moser, Christine; Birkholz, Julie M.; Nerghe, Adina; Groenewegen, Peter; Wang, Shenghui (2020):

**Ideas with impact. How connectivity shapes idea diffusion.**

In: *Research Policy* 49 (1), S. 103881. DOI: 10.1016/j.respol.2019.103881.

*Abstract:*

Despite a growing body of research on idea diffusion, there is a lack of knowledge on why some ideas successfully diffuse and stand out from the crowd while others do not surface or remain unnoticed. We address this question by looking into the characteristics of an idea, specifically its connectivity in a content network. In a content network, ideas connect to other ideas through their content the words that the ideas have in common. We hypothesize that a high connectivity of an idea in a content network is beneficial for idea diffusion because this idea will more likely be conceived as novel yet at the same time also as more useful because it appears as more familiar to the audience. Moreover, we posit that a high social connectivity of the team working on the idea further enhances the effect of high content connectivity on idea diffusion. Our study focuses on academic conference publications and the co-authorship data of a community of computer science researchers from 2006 to 2012. We find confirmation for our hypotheses and discuss the implications of these findings.

Delgado, Mercedes; Mills, Karen G. (2020):

**The supply chain economy. A new industry categorization for understanding innovation in services.**

In: *Research Policy* 49 (8), S. 104039. DOI: 10.1016/j.respol.2020.104039.

*Abstract:*

An active debate has centered on the importance of manufacturing for driving innovation in the U.S. economy. This paper offers an alternative framework that focuses on the role of suppliers of goods and services (the "supply chain economy") in national performance. We identify three conceptual attributes of suppliers that make them important for innovation: they produce specialized inputs; have more downstream linkages with other industries; and benefit especially from co-locating with their customers, creating externalities. Using the 2002 Benchmark Input-Output Accounts, we estimate a new industry categorization that separates supply chain (SC) industries (i.e., those that sell primarily to businesses or government) from business-to-consumer (B2C) industries (i.e., those that sell primarily to consumers). We find that the supply chain economy is a distinct and large segment of the economy that includes primarily service providers. The SC industries, especially traded services, have higher average wages than B2C industries. The supply chain economy also has higher innovative activity as captured by the concentration of the vast majority of STEM jobs (primarily in traded services) and patents (in manufacturing). Finally, we find that employment in the economy has evolved from manufacturing into two distinct types of services (1998-2015): SC Traded Services (with the highest STEM intensity and wages) versus B2C Main Street (with the lowest STEM intensity and wages).

Drivas, Kyriakos; Kremmydas, Dimitris (2020):

### The Matthew effect of a journal's ranking.

In: *Research Policy* 49 (4), S. 103951. DOI: 10.1016/j.respol.2020.103951.

#### Abstract:

We examine the impact of a journal's ranking on the citations its papers garner. Our testbed is journals included in the early annual publications of the Academic Journal Guide, published by the Association of Business Schools from 2007 to 2010. By focusing on a small subset of these journals, we provide causal evidence that an increase in a journal's ranking will increase citations to its papers. We argue that this increase can be attributed to (i) more authors learning about and viewing these outlets and their publications and (ii) researchers signalling their paper's own impact by citing highly ranked journals. We find some evidence for the former, though not robust, and substantial evidence for the latter. Given that signalling is deliberate and associated with incentives to publish in highly ranked journals, we decompose this channel by citing researchers' characteristics. Except for senior academics, all types of researchers are consistent with signalling. The policy implications of our results relate to the pervasive use of journal rankings and recent initiatives to evaluate research.

Ejdemo, Thomas; Ortqvist, Daniel (2020):

Related variety as a driver of regional innovation and entrepreneurship. A moderated and mediated model with non-linear effects.

In: *Research Policy* 49 (7), S. 104073. DOI: 10.1016/j.respol.2020.104073.

#### Abstract:

The notion of related variety has proved to be an important contribution to the literature on innovation-enhancing regional knowledge externalities in different industry structures. Related variety provides a disentangled view of diversification based on the technological and cognitive proximity of different industries. The core hypothesis of this concept, which states that related variety fosters innovation and employment growth by facilitating knowledge spillovers, has gained increasing empirical support. To date, a relatively modest number of empirical studies have explicitly linked related variety to enhanced regional innovative output. The role of entrepreneurship has also received little attention in the literature, even though economic theory emphasizes that entrepreneurs have an important role in transforming spillovers of knowledge into innovation and growth. The purpose of this paper is to contribute to the extant literature on regional innovation with an analysis that probes deeper into the mechanism by which related variety fosters innovation, and to examine how knowledge appropriation mechanisms affects the entrepreneurial opportunities that external knowledge presents. Our empirical analysis employs a moderated and mediated model with non-linear knowledge spillover effects of related variety. We use panel data on 60 Swedish functional analysis regions for the years 2008-2016 and estimate fixed effects models to examine the relationships between related variety, regional innovation and entrepreneurship. Conceptually, our results disentangle the effects of regional knowledge stocks and related variety on the rate at which new ideas are commercialized through entrepreneurship. We find a substantial direct effect of knowledge stocks, and an important indirect effect via knowledge spillovers between cognitively similar firms. A key contribution of this paper is that we show that this effect is conditional on the extent to which knowledge appropriation mechanisms are implemented, which has not been addressed in the literature on knowledge spillover effects of related variety before. Another novel contribution of this paper is that we find evidence of diminishing marginal returns to related variety with respect to innovation and entrepreneurship.

Fackler, Thomas A.; Giesing, Yvonne; Laurentsyeve, Nadzeya (2020):

### Knowledge remittances. Does emigration foster innovation?

In: *Research Policy* 49 (9, SI), S. 103863. DOI: 10.1016/j.respol.2019.103863.

#### Abstract:

Does the emigration of skilled individuals necessarily result in losses for source countries due to a brain drain? Combining industry-level patenting and migration data from 32 European countries, we show that emigration positively contributes to innovation in source countries and does not increase asymmetries in innovation levels between more and less advanced countries. We use changes in the labour mobility legislation within Europe as exogenous variation to establish causality. In addition, by analysing patent citation data, we provide evidence that these positive effects are driven by knowledge flows triggered by migrants. While skilled migrants are not inventing in their home country anymore, they contribute to cross-border knowledge and technology diffusion.

Ferriani, Simone; Lazerson, Mark H.; Lorenzoni, Gianni (2020):

**Anchor entrepreneurship and industry catalysis. The rise of the Italian Biomedical Valley.**

In: *Research Policy* 49 (8), S. 104045. DOI: 10.1016/j.respol.2020.104045.

**Abstract:**

Accounting for the rise of the medical device industry in the Emilia-Romagna town of Mirandola from a once depressed agricultural area in 1962 to a world-manufacturing center for dialysis equipment and disposable plastic medical devices, requires in large measure mapping the methods of the local entrepreneur who spearheaded its development. Reworking Agrawal and Cockburn's anchor-tenant hypothesis highlighting the role of large organizations in fostering agglomerations, this paper privileges the Schumpeterian entrepreneur as the dynamic force driving new industrial formations. This anchor-entrepreneur with no prior experience in manufacturing medical devices and without any public financing or large private backers founded six firms. Each of these would be sold off fairly quickly to a different large multinational corporation. Placing the anchor-entrepreneur at the center stage advances understanding of early industry evolution, spelling out how first-mover pioneers shape the environment to establish the first markets needed to attract new resources and capabilities. Underpinning our argument are 61 fine-grain interviews with key medical device industry informants in addition to extensive secondary sources and historical records. We draw on this material to induce a stylized model of anchor-entrepreneurship and industry catalysis that rests on three generative processes: bricolage, second-hand imprinting and beaconing.

Ferrucci, Edoardo (2020):

**Migration, innovation and technological diversion. German patenting after the collapse of the Soviet Union.**

In: *Research Policy* 49 (9, SI), S. 104057. DOI: 10.1016/j.respol.2020.104057.

**Abstract:**

Recent migratory shocks call for in-depth, structured studies of both the benefits and drawbacks of these phenomena. Using records from the European Patent Office, this paper documents the influence of Soviet inventors that migrated to Germany following the collapse of the Soviet Union on the patent production of local inventors. The evidence points to an increase in patent production in the technology fields in which the Soviet Union was most active, and a tendency for local inventors who had directly collaborated with their Soviet counterparts to explore new technology domains.

Figueiredo, Paulo N.; Larsen, Henrik; Hansen, Ulrich E. (2020):

**The role of interactive learning in innovation capability building in multinational subsidiaries. A micro-level study of biotechnology in Brazil.**

In: *Research Policy* 49 (6), S. 103995. DOI: 10.1016/j.respol.2020.103995.

**Abstract:**

Although multinational enterprises (MNEs) from advanced economies have increasingly internationalised their innovation activities, including R&D, into emerging economies, we have an incomplete understanding of how subsidiaries in these contexts create the technological capabilities to innovate. Based on a single-case qualitative study of a Brazilian subsidiary of a large biotechnology MNE (1989-2016), we found that: (1) the subsidiary's technological capability-building, from production-based to advanced levels (including R&D for applied research), reflects the effectiveness with which it implemented interactive learning strategies through the use of 'science, technology and innovation' (STI) and doing, using and interacting' (DUI) learning mechanisms to tap into three types of knowledge sources: within the subsidiary, the MNE corporate network, and other host sectoral system organisations; (2) the effectiveness of these strategies related to the combined and complementary use of various STI/DUI learning mechanisms over time, which supported the technological capability-building process and, ultimately, the implementation of innovation activities with increased value and novelty. By using a comprehensive and integrative approach to interactive learning, examining how such learning affects the subsidiary's accumulation of innovation capability 'levels' and adopting a micro-level perspective in a host emerging economy, we contribute to furthering the understanding of knowledge-seeking strategies and innovation in MNE-subsidiaries, from the standpoint of biotechnology. We also provide a basis for deepening the analysis of interactive learning in subsidiaries in other industries and other emerging economies.

Filippetti, Andrea; Guy, Frederick (2020):

### Labor market regulation, the diversity of knowledge and skill, and national innovation performance.

In: *Research Policy* 49 (1), S. 103867. DOI: 10.1016/j.respol.2019.103867.

#### *Abstract:*

The diversity of knowledge and skill is an important element of a national system of innovation. We propose a theory of how certain labor market institutions affect diversity, and through that route affect levels of innovation. Specifically, unemployment protection (UP) encourages diversity by reducing the risk burden of a broad range of learning, or human capital investment; for that reason, UP fosters innovation. Employment protection (EP) reduces the risk burden of a much narrower range of learning; for this reason, it will not enhance diversity to the extent UP does, and it may actually depress overall diversity and innovation. Our approach differs from previous research on labor market insurance and skill formation, much of which has dealt with a distinction between general and specific skills, and which has treated the effects of UP and EP as similar. Estimating the effects of UP and EP on patenting for 25 OECD countries over 24 years, we find a positive effect from UP, a negative effect from EP, and evidence that the UP effect is mediated by diversity of skill.

Fini, Riccardo; Grimaldi, Rosa; Meoli, Azzurra (2020):

### The effectiveness of university regulations to foster science-based entrepreneurship.

In: *Research Policy* 49 (10, SI), S. 104048. DOI: 10.1016/j.respol.2020.104048.

#### *Abstract:*

In this study, we analyze the effect of the introduction of university regulations supporting academic entrepreneurship. Using a sample of 611 companies spun-off from the 64 Italian Science, Technology, Engineering, Mathematics and Medicine (STEMM) universities between 2002 and 2012, we show that university regulations in support of academic entrepreneurship have a positive effect on the creation of academic spin-offs. Nevertheless, their effectiveness is conditioned by specific contingencies. First, the characteristics of university departments influence the positive effect of the regulation: in some cases, there is a substitution effect rather than a complementary one. Second, the design of the regulation impacts the decisions of academic staff regarding whether to start a new venture. Finally, the effect of the regulation is maximized four years after its introduction and then becomes less effective. This paper contributes to the debate on the evaluation of policies supporting science-based entrepreneurship.

Fontana, Magda; Iori, Martina; Montobbio, Fabio; Sinatra, Roberta (2020):

### New and atypical combinations. An assessment of novelty and interdisciplinarity.

In: *Research Policy* 49 (7), S. 104063. DOI: 10.1016/j.respol.2020.104063.

#### *Abstract:*

Novelty indicators are increasingly important for science policy. This paper challenges the indicators of novelty as an atypical combination of knowledge (Uzzi et al., 2013) and as the first appearance of a knowledge combination (Wang et al., 2017). We exploit a sample of 230,854 articles (1985 - 2005), published on 8 journals of the American Physical Society (APS) and 2.4 million citations to test the indicators using (i) a Configuration Null Model, (ii) an external validation set of articles related to Nobel Prize winning researches and APS Milestones, (iii) a set of established interdisciplinarity indicators, and (iv) the relationship with the articles' impact. We find that novelty as the first appearance of a knowledge combination captures the key structural properties of the citation network and finds it difficult to tell novel and non-novel articles apart, while novelty as an atypical combination of knowledge overlaps with interdisciplinarity. We suggest that the policy evidence derived from these measures should be reassessed.

Fu, Limin; Boehe, Dirk; Orlitzky, Marc (2020):

### Are R&D-Intensive firms also corporate social responsibility specialists? A multicountry study.

In: *Research Policy* 49 (8), S. 104082. DOI: 10.1016/j.respol.2020.104082.

*Abstract:*

Seeking to obtain efficiency in the development and integration of knowledge about R&D and corporate social responsibility (CSR), firms face hard choices about their resource allocation to these two areas because of the specialized nature of knowledge and related barriers to integration. We address this organizational resource allocation dilemma by relaxing the common assumption that firms are either responsible or irresponsible and examining financial slack as a possible moderator. Using a multicountry sample of 1,957 firms over a 16-year timespan, we find strong empirical support for the positive association between firms' R&D intensity and CSR specialization, a novel concept that is distinct from CSR as such—gauges the extent to which firms specialize in specific environmental, social, or governance aspects of CSR. However, there is insufficient support for financial slack as a moderator in general (except for one noteworthy industry pattern and an alternative operationalization of slack). The exceptions suggest that the nature of organizational slack may influence the relationship between R&D and CSR specialization.

Garcia-Granero, Eva M.; Piedra-Munoz, Laura; Galdeano-Gomez, Emilio (2020):

### Measuring eco-innovation dimensions. The role of environmental corporate culture and commercial orientation.

In: *Research Policy* 49 (8), S. 104028. DOI: 10.1016/j.respol.2020.104028.

*Abstract:*

Eco-innovation (EI) is a complex process that involves product, process, organizational and marketing dimensions, each with its own determinants, characteristics and contributions to environmental business performance. Thus, analyzing EI activity is essential to obtaining a holistic view in order to achieve sustainable development. This study offers a multidimensional EI measurement and, what is more, evaluates its relationship with environmental corporate culture and commercial orientation drivers in a high environmental impact context, i.e., the agri-food sector. The proposed model was tested using the partial least-squares technique, which was applied to data collected from a sample of 93 companies located in southeast Spain. This study confirms the importance of several dimensions, namely marketing, organization and process, to corporate adoption of EI. Additionally, this research also reveals the positive relationship that both drivers, environmental corporate culture and commercial orientation, have with EI. The findings also suggest that theorists and practitioners must contemplate EI from the point of view of its four dimensions in order to achieve an efficient, more realistic analysis. Subsequently, this work carries some theoretical conclusions and implications for research and practice.

Gatkowski, Mateusz; Dietl, Marek; Skrok, Lukasz; Whalen, Ryan; Rockett, Katharine (2020):

### Semantically-based patent thicket identification.

In: *Research Policy* 49 (2), S. 103925. DOI: 10.1016/j.respol.2020.103925.

*Abstract:*

Patent thickets have been identified as a major stumbling block in the development of new technologies, creating the need to accurately identify thicket membership. Various citations-based methodologies (Graevenitz et al., 2011; Clarkson, 2005) have been proposed, which have relied on broad survey results (Cohen et al., 2000) for validation. Expert evaluation is an alternative direct method of judging thicket membership at the individual patent level. While this method potentially is robust to drafting and jurisdictional differences in patent design, it is also costly to use on a large scale. We employ a natural language processing technique, which does not carry these large costs, to proxy expert views closely. Furthermore, we investigate the relation between our semantic measure and citation based measures, finding them quite distinct. We then combine a variety of thicket indicators into a statistical model to assess the probability that a newly added patent belongs to a thicket. We also study the role each measure plays, as part of creating a prospective screening model that could improve efficiency of the patent system, in response to Lemley (2001).

Ge, Chunmian; Huang, Ke-Wei; Kankanhalli, Atreyi (2020):

### Platform skills and the value of new hires in the software industry.

In: *Research Policy* 49 (1), S. 103864. DOI: 10.1016/j.respol.2019.103864.

*Abstract:*

The software industry is unique in terms of its “platform economics” where many firms build their products based on dominant software platforms. Hiring workers from firms with high platform knowledge may thus create externalities for the recipient software firms. Yet, while prior studies have shown that hiring IT workers creates value for recipient firms, the sources of such hiring and the characteristics of recipients that increase value in the software industry are unclear. This paper contributes to the literature by uncovering that the value created through hiring IT workers in the software industry stems largely from firms that are high in platform human capital. Using a large dataset derived from an online professional network, we show that hiring platform-skilled workers from firms that are high in platform human capital is associated with a statistically and economically significant increase in financial performance of the recipient software firms. Further, the value of hiring derives from platform-skilled workers with tenure long enough at the source firms, and for recipient firms that are innovative and have high R&D intensity. We thus explicate the sources of hiring and recipient characteristics that increase value for software firms, and derive implications from the findings.

Geddes, Anna; Schmidt, Tobias S. (2020):

### Integrating finance into the multi-level perspective. Technology niche-finance regime interactions and financial policy interventions.

In: *Research Policy* 49 (6), S. 103985. DOI: 10.1016/j.respol.2020.103985.

*Abstract:*

Any major socio-technical transition requires a fundamental re-direction of financial capital from incumbent to new technologies and practices. While the transitions literature conceptually covers financial markets, the role of finance is marginalized and has scarcely been analysed empirically. To address this gap, here we build on the multi-level perspective (MLP), which considers financial markets as part of the existing regime. We argue that the role of finance is highly relevant for the niche-regime interaction: Redirecting finance towards new niche technologies requires that either the niche is fit for and conforms to the financial regime's expectations or the financial regime is stretched and transformed in order to accept and finance niche technologies. Based on 56 interviews, we identify factors that determine interactions between the financial regime and technology niches: these include acceptable risk and transaction size, an abundance of knowledge and heuristics in both the regime and niche, and an extensive, existing industry network. We further analyse how State Investment Bank (SIB) interventions in Germany, the UK and Australia, aimed to mobilise private finance into low-carbon project development, affect the interaction between the technology niche and financial regime, i.e. whether they resulted in fitting-and-conforming the technological niche for the financial regime or stretching-and-transforming the financial regime. Our results point to several important effects of SIB interventions, with most effects fitting the niche to the regime. However, we also detect effects that stretch and transform the financial regime through evolutionary processes. Importantly, some effects occur as a consequence of the primary effects. Based on our findings we discuss policy implications on how to accelerate transitions through policies aiming at finance as well as theoretical insights gained through our analysis.

Gilding, Michael; Brennecke, Julia; Bunton, Vikki; Lusher, Dean; Molloy, Peter L.; Codoreanu, Alex (2020):

### Network failure. Biotechnology firms, clusters and collaborations far from the world superclusters.

In: *Research Policy* 49 (2), S. 103902. DOI: 10.1016/j.respol.2019.103902.

*Abstract:*

This article traces the trajectory of biotechnology firms, clusters and collaborations in Australia between 2003 and 2014. Combining descriptive analyses, network visualizations and statistical modelling of longitudinal data collected from multiple sources, we investigate Australian firms' ability to overcome the three challenges characterizing biotechnology: first, accessing new knowledge and intellectual property; second, raising early-stage funding for timely product development; and third, bringing products to market. Like biotechnology firms worldwide, Australian firms adopt a network approach to success, relying on different types of collaborative ties with diverse partners to access complementary resources and facilitate learning and innovation. The aspiration here is a virtuous cycle, where networks promote innovation and innovation promotes networks, as occurs in the world superclusters. In contrast, our analyses show that the collaborations of Australian biotechnology firms produce not so much a virtuous cycle, as a dead end. Specifically, local collaborations with public research organizations generate network effects in meeting the challenges of new knowledge and early-stage funding, but do not extend to the challenge of bringing products to market. We link this 'network failure' to the limitations of public research organizations as anchor tenants with the capability to catalyze collaborations with distant partner

organizations directed towards commercialization, in particular giant multinational pharmaceutical corporations. Our study enriches the substantial literature on networked innovation, which is biased towards celebrating the benefits of networks and collaborations for innovation and performance, particularly in biotechnology.

Gimenez-Fernandez, Elena M.; Sandulli, Francesco D.; Bogers, Marcel (2020):

**Unpacking liabilities of newness and smallness in innovative start-ups. Investigating the differences in innovation performance between new and older small firms.**

In: *Research Policy* 49 (10, SI), S. 104049. DOI: 10.1016/j.respol.2020.104049.

*Abstract:*

New ventures face both liabilities of newness and smallness, which may inhibit their innovation efforts and output. However, existing research has not clearly distinguished between the two liabilities, leaving it unclear how certain determinants differentially affect innovation performance in start-ups relative to older established small and medium sized enterprises (SMEs). Therefore, in this study we investigate the impact of R&D investments, external knowledge sourcing and public R&D subsidies on innovation effectiveness in new versus older small firms. Employing panel data from the Spanish Community Innovation Survey (CIS), we show that R&D investments have a lower contribution to the innovation performance of new ventures, compared to older small firms. In contrast, we find that external knowledge sourcing makes a higher contribution to the innovation performance of new compared to older small firms, but only in high-tech settings. However, we find no support for a differentiating effect of R&D subsidies in new versus established small firms. Effectively, our results highlight the limited effects of internal R&D investments and R&D policy instruments to promote the growth of innovative start-ups, while highlighting potential benefits of their openness to external sources of innovation. As such, these results have important implications for research, practices and policies that relate to innovation in new ventures and SMEs, while casting doubts on the effectiveness of some of the common strategy and policy instruments to stimulate performance in small innovative start-ups.

Ginther, Donna K.; Heggeness, Misty L. (2020):

**Administrative discretion in scientific funding. Evidence from a prestigious postdoctoral training program.**

In: *Research Policy* 49 (4), S. 103953. DOI: 10.1016/j.respol.2020.103953.

*Abstract:*

The scientific community is engaged in an active debate on the value of its peer-review system. Does peer review actually serve the role we envision for it—that of helping government agencies predict what ideas have the best chance of contributing to scientific advancement? Many federal agencies use a two-step review process that includes programmatic discretion in selecting awards. This process allows us to determine whether success in a future independent scientific-research career is more accurately predicted by peer-review recommendations or discretion by program staff and institute leaders. Using data from a prestigious training program at the National Institute of Health (NIH), the Ruth L. Kirschstein National Research Service Award (NRSA), we provide evidence on the efficacy of peer review. We find that, despite all current claims to the contrary, the existing peer-review system works as intended. It more closely predicts high-quality science and future research independence than discretion. We discover also that regression discontinuity, the econometric method typically used to examine the effect of scientific funding, does not fit many scientific-funding models and should only be used with caution when studying federal awards for science.

Goetz, Stephan J.; Han, Yicheol (2020):

**Latent innovation innovation in local economies.**

In: *Research Policy* 49 (2), S. 103909. DOI: 10.1016/j.respol.2019.103909.

*Abstract:*

We propose a measure of latent innovation in local economies based on spillovers among industries in terms of inter-industry sales and purchases as well as spatial proximity. The proposed measure captures innovation that is not reflected in

typical NSF-based statistics such as patents, R&D spending, or science and engineering workers. When the results are mapped for the U.S., regions that one would expect to be highly innovative also show up as such. To determine whether this measure helps to explain economic growth beyond traditional factors such as human capital and agglomeration, and conventional measures of innovation, we estimate simple regression models with income and employment growth as dependent variables. The proposed innovation measure is statistically significant even after we control for rival causes of growth. We suggest that our measure is preferable to conventional innovation indicators for understanding where in the U.S. innovation, more broadly defined, is occurring.

Goldstein, Anna P.; Kearney, Michael (2020):

**Know when to fold 'em. An empirical description of risk management in public research funding.**

In: *Research Policy* 49 (1), S. 103873. DOI: 10.1016/j.respol.2019.103873.

*Abstract:*

Public research funding programs typically make grants with minimal intervention by program staff, rather than using a hands-on approach to project management, which is more common in the private sector. In contrast, program staff at the US Department of Energy's Advanced Research Projects Agency Energy (ARPA-E) are given a set of real options with which to manage funded projects: abandon, contract or expand project budgets or timelines. Using internal data from ARPA-E, we show that active project management enables risk mitigation across a portfolio of research projects. We find that program staff modify projects frequently, especially project timelines, and these changes are more sensitive to poor performance than to strong performance. We also find that projects with a shortened timeline or reduced budget are less likely to generate short-term research outputs, compared to those of ultimately similar size. This evidence suggests that the practice of active project management, when combined with high upfront risk tolerance, can be used to enhance the productivity of mission-oriented public research funding.

Gomez, Jaime; Salazar, Idana; Vargas, Pilar (2020):

**The Role of Extramural R&D and Scientific Knowledge in Creating High Novelty Innovations. An Examination of Manufacturing and Service Firms in Spain.**

In: *Research Policy* 49 (8), S. 104030. DOI: 10.1016/j.respol.2020.104030.

*Abstract:*

This paper studies the effect of extramural R&D and of scientific knowledge in the creation of high novelty innovations. We first argue that extramural R&D brings in higher benefits, but also higher costs, when trying to obtain high novelty vs. low novelty innovations. Second, we propose that extramural investments in scientific R&D allow the firm to access distant knowledge and to break the path dependence induced by its resource endowments. However, investments in scientific R&D are also subject to the risks of the 'two worlds' that result from the collaboration of firms and universities and research centres. Our hypotheses are tested with data from the Panel of Technological Innovation, which describes the innovative activities of Spanish firms from 2005 to 2013. Our results show an inverted U-shaped relationship between extramural R&D and the share of sales from new products. They also reveal that extramural R&D investments increase the proportion of sales from high novelty products more than from low novelty products (a 21% vs. a 2%). However, an excessive reliance on extramural R&D reduces more the sales from high novelty innovations than from low novelty innovations (a 52% vs. a 32%). Finally, extramural R&D performed by universities and research centres raises the share of sales from high novelty innovations. However, collaboration with non-scientific sources is more impactful than collaboration with scientific ones, no matter the nature of the innovation considered.

Graddy-Reed, Alexandra (2020):

**Getting ahead in the race for a cure. How nonprofits are financing biomedical R&D.**

In: *Research Policy* 49 (8), S. 104032. DOI: 10.1016/j.respol.2020.104032.



*Abstract:*

In recent years, nonprofit firms focused on specific diseases have increased their grantmaking efforts in the search of a cure. They have become more aggressive in directly funding research and lobbying for public support, even if their cause affects a small number of people. This paper contributes to the literatures on R&D financing by developing the first production function for disease and medical research nonprofits, a growing funder of biomedical R&D. Using IRS data, the model estimates the role of market competition and firm demographics on the adoption of grantmaking and lobbying strategies. Most notably, results provide evidence that firms in more geographically concentrated (less competitive markets) are more likely to adopt a lobbying strategy and less likely to be grantmaking on the extensive margin. Descriptive cases also illustrate funding discrepancies between charitable and government support across disease prevalence.

Graf, Holger; Broekel, Tom (2020):

### A shot in the dark? Policy influence on cluster networks.

In: *Research Policy* 49 (3), S. 103920. DOI: 10.1016/j.respol.2019.103920.

*Abstract:*

Cluster policies are often intended and designed to promote interaction in R&D among co-located organisations, as local knowledge interactions are perceived to be underdeveloped. In contrast to the popularity of the policy measure little is known about its impact on knowledge networks, because most scientific evaluations focus on impacts at the firm level. Using the example of the BioRegio contest, we explore cluster policy effects on local patent co-application and co-invention networks observed from 1985 to 2013, in 17 German regions. We find that the initiative increases network size and innovation activities during the funding period but not afterwards. The impact of the BioRegio contest on network cohesion is moderate. In contrast, general project-based R&D subsidisation is found to support cohesion more robustly.

Guridi, Jose A.; Pertuze, Julio A.; Pfothenauer, Sebastian M. (2020):

### Natural laboratories as policy instruments for technological learning and institutional capacity building. The case of Chile's astronomy cluster.

In: *Research Policy* 49 (2), S. 103899. DOI: 10.1016/j.respol.2019.103899.

*Abstract:*

Natural laboratories (NLs) have received growing attention as sites of competitive advantage for scientific and technological development afforded by their unique geographic characteristics. Emerging economies are increasingly seeking to capitalize on the scientific potential of NLs and the technological and economic spillovers they may create, frequently by collaborating with international expert communities. This study explores the policy strategies to harness NLs for technological learning and institutional capacity building with a particular focus on international collaboration. We draw upon an in-depth case study of one of the world's most prominent NLs, the astronomical observatory cluster in the Atacama Desert in Chile, slated to concentrate more than 70% of the world's astronomical infrastructure by 2025. We develop a conceptual framework for spillover generation associated with NLs to capture the processes by which institutional, knowledge, infrastructure, economic, and social capital spillovers were generated or missed. We find that spillover generation is a complex systemic phenomenon with links between different spillover types, including trade-offs between positive and negative spillovers. Our findings suggest that host countries can-and arguably should-design custom-tailored policy strategies and collaborative frameworks in ways that strengthen local opportunities early on (e.g., through formalized participation strategies or regular renegotiations) to avoid NLs becoming enclaves dominated by international partners. Governments should pursue inclusive, adaptive, and sustainable policy strategies to harness the long-term scientific, social, and economic benefits of NLs. Without such strategies, NLs risk reinforcing patterns of dependency and inequality, both nationally and internationally.

Haeussler, Carolin; Sauermann, Henry (2020):

### Division of labor in collaborative knowledge production. The role of team size and interdisciplinarity.

In: *Research Policy* 49 (6), S. 103987. DOI: 10.1016/j.respol.2020.103987.

*Abstract:*

Teams performing scientific research are becoming increasingly large and interdisciplinary. While prior work has examined antecedents and performance implications of these trends, it is not clear how size and interdisciplinarity relate to teams' internal organization, especially the division of labor (DoL) between members. We first develop an organizing framework that integrates three complementary dimensions of DoL: (1) the specialization of individual team members, (2) the distribution of activities across team members, and (3) interdependencies between activities. We then discuss how these aspects of DoL are related to team size and interdisciplinarity and test our hypotheses using author contribution data from over 12,000 scientific articles. We find that team size has a positive relationship with an aggregate measure of DoL, but disaggregated measures show that this relationship holds for some aspects of DoL and not others. We also find that interdisciplinary teams use greater division of labor, although this effect depends on the degree to which interdisciplinarity is infra- versus inter-personal. We conclude by discussing how our conceptual and empirical toolkit may be applied in future research on the drivers and consequences of division of labor in teams.

Haschka, Rouven E.; Herwartz, Helmut (2020):

Innovation efficiency in European high-tech industries. Evidence from a Bayesian stochastic frontier approach.

In: *Research Policy* 49 (8), S. 104054. DOI: 10.1016/j.respol.2020.104054.

*Abstract:*

Innovation output is key to the long run business success in high-technology markets. Since research is costly, the absorption of external knowledge might be a powerful device for improving innovation processes. Considering four high-technology sectors in Europe, we examine to what extent local networking, competitive spillovers, or (unobserved) locational advantages influence innovation processes at the firm level. Since high-technology markets require strong innovative capacity, we specifically investigate the effectiveness of patent blocking as a promising strategy to exclude competition and to improve own competitiveness. We model innovation processes empirically by means of a recent Bayesian stochastic frontier approach that allows for spatial dependence and spillover effects. Our results indicate that growing pressures to innovate could create vicious levels of innovation competition. Moreover, the access to local networks boosts the pursuit of innovation and enhances innovativeness.

Hipp, Ann; Binz, Christian (2020):

Firm survival in complex value chains and global innovation systems. Evidence from solar photovoltaics.

In: *Research Policy* 49 (1), S. 103876. DOI: 10.1016/j.respol.2019.103876.

*Abstract:*

Economic globalization and the modularization of value chains increasingly challenge long-held conceptual models explaining the spatial evolution of industries. This paper seeks to re-interpret early industry life cycle dynamics by disintegrating an industry's value chain into upstream, core and downstream parts and characterizing each part according to its underlying global innovation system (GIS) configuration. We distinguish between firms in parts of the value chain that depend on formalized, science-based innovation and cater for globally standardized mass markets ('footloose' GIS) and firms in parts of the value chain that rely on spatially more stable GIS structures, in which either the innovation activities or the valuation dynamics (or both) depend on spatial embedding in given territorial contexts. Our hypothesis is that firms which occupy parts of the value chain with footloose GIS characteristics will have shorter survival times than firms which operate in spatially more stable GIS types. Demand-side policies will accordingly produce stronger competitive advantages for firms operating in GIS with spatially stable valuation structures. The empirical context of our study is the solar photovoltaics (PV) industry. We analyze market entry and exit of 129 German and 127 Japanese PV firms from 1960 to 2016 using a Cox Proportional Hazards model. The results support the hypotheses that firm survival and policy effects depend on a value chain part's underlying GIS configuration.

Hohberger, Jan; Kruger, Heidi; Almeida, Paul (2020):

Does separation hurt? The impact of premature termination of R&D alliances on knowledge acquisition and innovation.

In: *Research Policy* 49 (6), S. 103944. DOI: 10.1016/j.respol.2020.103944.

*Abstract:*

While there is vast research on alliance formation linked to knowledge acquisition and innovation, research is limited on the impact of alliance termination on these same dimensions. Addressing this gap and building on the knowledge-based view of the firm, we analyze the impact of premature alliance termination on knowledge acquisition and innovation outcomes. We apply a difference-in-differences and matching-based estimation to a sample of terminated and non-terminated R&D alliances in the life sciences. Our analysis suggests that alliance termination reduces innovation performance and that innovation output becomes less technologically diverse, while knowledge acquisition becomes less externally oriented. However, we find no relevant drop in acquisition of knowledge from alliance partners post alliance termination. Our exploration of conditional effects shows that firm-level factors, particularly a firm's alliance portfolio, moderate termination effects, while alliance-specific conditions have little impact.

Hojckova, Kristina; Ahlborg, Helene; Morrison, Gregory M.; Sanden, Bjorn (2020):

Entrepreneurial use of context for technological system creation and expansion. The case of blockchain-based peer-to-peer electricity trading.

In: *Research Policy* 49 (8), S. 104046. DOI: 10.1016/j.respol.2020.104046.

*Abstract:*

This paper engages with the question of why certain radical innovations succeed while others fail or stagnate when encountering established actors and sector logics. We develop an analytical framework that extends the technological innovation systems (TIS) functional approach to explicitly account for contextual factors and entrepreneurial activities. We contribute to two ongoing debates: the conceptualization of context in TIS and the micro-foundation of TIS. First, a two-dimensional matrix is constructed to locate influential factors in the spatial (geographical) and sociotechnical (sectoral) contexts. Second, for early stages of the innovation process, we identify entrepreneurial activities as the locus of the system-building functions, i.e. the activities that use contextual and system-internal factors to develop the novel technological system. We use the TIS approach to analyze the innovation system build-up of peer-to-peer (P2P) electricity trading on a blockchain platform, materializing in two local projects, one in Australia and another in the USA. We find that how and why the new configuration succeeded in productively encountering electricity sector incumbents can be explained by the extent to which entrepreneurs could use opportunities in various contexts across spatial and sectoral boundaries.

Holm, Jacob Rubaek; Lorenz, Edward; Nielsen, Peter (2020):

Work organization and job polarization.

In: *Research Policy* 49 (8), S. 104015. DOI: 10.1016/j.respol.2020.104015.

*Abstract:*

This paper contributes to the literature on job polarization, whereby mid-skill jobs disappear because of increased mechanization and digitization of routine tasks. While the recent empirical literature has focused on the relative importance of technical change and globalization as the main drivers of job polarization, the role of within firm organizational changes has remained unexplored. Our study contributes to filling this gap by investigating how technological and organizational changes affect the mix of jobs within the firm. To this end we merge two firm level surveys from Denmark and add registry data to gain detailed knowledge of changes in the firms' occupational structure. We construct measures of work organization in line with previous research and using a translog model we show that changes in work organization are associated with polarization by substituting and complementing different skill groups, even in the absence of technological change and changes in offshoring. The results show not only that the organizational level is central to understanding possible trends towards job polarization, but also demonstrate that changes in work organization often co-occur with changes in technology and in offshoring behavior, leading to interactions effects between organizational change, and technology and offshoring on job polarization.

Hoogendoorn, Brigitte; van der Zwan, Peter; Thurik, Roy (2020):

### Goal heterogeneity at start-up. Are greener start-ups more innovative?

In: *Research Policy* 49 (10, SI), S. 104061. DOI: 10.1016/j.respol.2020.104061.

#### Abstract:

Start-ups differ in the extent to which they introduce innovations to markets and, hence, in their potential contribution to society. Understanding the heterogeneous character of start-ups is key to explaining the variability in innovation. In this study, we explore whether start-ups that place more emphasis on environmental value creation versus economic value creation ('greener start-ups') are more innovative. We also examine how environmental regulations at the country level affect this relationship. We theorize that the fundamental difference between economic value creation (private wealth generation, i.e., self-regarding interest) and environmental value creation (environmental gains for society, i.e., other-regarding interest) influences entrepreneurial opportunity identification and exploitation. When considering the regulatory context, we draw on the innovation inducement effect of environmental regulations and expect these regulations to be most effective for entrepreneurs with a strong emphasis on economic value creation. Performing multi-level ordered logit regressions with 2,945 start-up entrepreneurs in 31 countries (Global Entrepreneurship Monitor data), we find that 'greener start-ups' are more likely to engage in product and process innovations. We find some evidence of a positive moderation effect for environmental regulations. We advance research on innovative entrepreneurship by theorizing and finding evidence that other-regarding goals are relevant in explaining start-up innovativeness.

Hoppmann, Joern; Anadon, Laura Diaz; Narayanamurti, Venkatesh (2020):

### Why matter matters. How technology characteristics shape the strategic framing of technologies.

In: *Research Policy* 49 (1), S. 103882. DOI: 10.1016/j.respol.2019.103882.

#### Abstract:

Previous work stresses that actors use strategic technology framing-i.e. purposeful language and rhetoric to shape technology expectations, persuade stakeholders, and influence the evolution of technologies along their life-cycle. Currently, however, the literature predominantly describes strategic technology framing as a sociopolitical process, and provides only limited insights into how the framing itself is shaped by the material characteristics of the technologies being framed. To address this shortcoming, we conducted a comparative, longitudinal case study of two leading research organizations in the United States and Germany pursuing competing solar photovoltaic (PV) technologies to examine how technology characteristics shape the strategic framing of technologies. We show that to frame PV technologies in their own favor, executives made use of four framing dimensions (potential, prospect, performance, and progress) and three framing tactics (conclusion, conditioning, and concession). Moreover, we show that which framing dimensions and tactics actors selected depended on the maturity and evolution of the technology they pursued, respectively. By highlighting how technology characteristics shape strategic technology framing, we contribute to the literatures on social movements, institutional entrepreneurship, and impression management. Additionally, by providing a coherent framework of strategic technology framing, our study complements existing findings in the literature on the sociology of expectations and contributes to a better understanding of how technology hypes emerge.

Horton, Joanne; Kumar, Dhanya Krishna; Wood, Anthony (2020):

### Detecting academic fraud using Benford law. The case of Professor James Hunton.

In: *Research Policy* 49 (8), S. 104084. DOI: 10.1016/j.respol.2020.104084.

#### Abstract:

We investigate whether Benford's Law can be used to differentiate retracted academic papers that have employed fraudulent/manipulated data from other academic papers that have not been retracted. We use the case of Professor James Hunton who had 37 of his articles retracted because there were grave concerns that they contained mis-stated or fabricated datasets. We construct several Benford conformity measures, based on first significant digits contained in the articles, to determine whether Hunton's retracted papers differ significantly from a control group of non-retracted articles by competing authors. Our results clearly indicate that Hunton's retracted papers significantly deviate from Benford Law, relative to the control group of papers. In additional analysis we also find these results are generalisable to other authors with retracted papers. Our findings suggest that potentially both co-authors and journals could consider implementing a

data analytical tool which employs Benford Law to highlight potential 'red flag' papers, with a view to decreasing the risk of fraudulent activity and thereby enhancing the credibility of academic papers and journals.

Hottenrott, Hanna; Richstein, Robert (2020):

### Start-up subsidies. Does the policy instrument matter?

In: *Research Policy* 49 (1), S. 103888. DOI: 10.1016/j.respol.2019.103888.

#### Abstract:

New knowledge-intensive firms contribute to innovation, competition, and employment growth, but externalities like knowledge spillovers can prevent entrepreneurs from appropriating the full returns from their investments. In addition, uncertainty and information asymmetry pose challenges for financing. Public policy programs therefore aim to support start-ups. This study evaluates the effects of participation in such programs on the performance of start-ups in high-tech and knowledge-intensive sectors that were founded in Germany between 2005 and 2012. Distinguishing between grants and subsidized loans and after matching recipients and non-recipients based on a broad set of founder and company characteristics, we find that both grants and subsidized loans facilitate tangible investment, employment and revenue growth. Grants are, however, better suited to increasing R&D investments than loans are. Combined with grants, subsidized loans facilitate turning research results into marketable products by means of investments in tangible assets. Start-ups that participate in both types of programs outperform grant-only recipients in terms of innovation performance, employment and future revenues. Finally, program participation does not crowd out private venture capital.

Hoxha, Sergei; Kleinknecht, Alfred (2020):

### When labour market rigidities are useful for innovation. Evidence from German IAB firm-level data.

In: *Research Policy* 49 (7), S. 104066. DOI: 10.1016/j.respol.2020.104066.

#### Abstract:

Supply-side economists made numerous pleas for removing labour market rigidities through 'structural reforms'. From a Schumpeterian viewpoint, however, one can argue that labour market rigidities create useful incentives for innovation. Our estimates on German panel data (2007-2015) support the Schumpeterian view. Using the taxonomy of industries by Peneder (2010) we find that evidence of the Schumpeterian view is particularly strong in R&D intensive manufacturing industries, as well as in service industries with high degrees of cumulativeness of knowledge. Evidence of the Schumpeterian view is weaker in low-technology industries and in start-ups when firms rely more on generally available knowledge rather than on firm-specific and tacit knowledge accumulated in the past.

Hu, Albert G. Z. (2020):

### Public funding and the ascent of Chinese science. Evidence from the National Natural Science Foundation of China.

In: *Research Policy* 49 (5), S. 103983. DOI: 10.1016/j.respol.2020.103983.

#### Abstract:

We investigate the role of public funding in the rapid ascent of Chinese science by examining the impact of a major upgrade of a funding program of the National Natural Science Foundation of China in 2011. Using research grant level data and a difference-in-differences estimator, we found that the more generous funding resulted in higher research output, measured by the number of publications, the number of citation-weighted publications, the number of journal impact factor-adjusted publications, and the maximum journal impact factor. This belies significant variation in the impact of the change in funding by researcher characteristics: 1) less-established researchers benefit more from the funding upgrade; 2) scientific fields that are more likely to be financially constrained benefited more; and 3) researchers from less-prestigious research institutions made more productive use of the additional funds. Finally, we found that the funding upgrade has led to increasing collaboration with researchers from top science-producing foreign countries for the less-prestigious institutions.

Kahn, Shulamit; MacGarvie, Megan (2020):

### The impact of permanent residency delays for STEM PhDs. Who leaves and why.

In: *Research Policy* 49 (9, SI), S. 103879. DOI: 10.1016/j.respol.2019.103879.

#### Abstract:

This paper assesses whether delays in obtaining permanent residency status can explain recent declines in the share of Chinese and Indian PhD graduates from US STEM programs who remain in the US after their studies. We find that newly-binding limits on permanent visas for those from China and India with advanced degrees are significantly associated with declines in stay rates. The stay rate of Chinese graduates declines by 2.1 percentage points for each year of delay, while Indian graduates facing delays of at least 51/2 years have a stay rate that is 10.6 percentage points lower. The per-country permanent visa cap affects a large share of STEM PhDs who are disproportionately found in fields of study that have been crucial in stimulating US economic growth yet enroll relatively few natives. Finally, results suggest that the growth of science in countries of origin has an important influence on stay rates, while macroeconomic factors such as GDP per capita affect stay rates only via their impact on science funding. We conclude that per-country limits play a significant role in constraining the supply of highly skilled STEM workers in the US economy.

Kanger, Laur; Sovacool, Benjamin K.; Noorkoiv, Martin (2020):

### Six policy intervention points for sustainability transitions. A conceptual framework and a systematic literature review.

In: *Research Policy* 49 (7), S. 104072. DOI: 10.1016/j.respol.2020.104072.

#### Abstract:

Recent literature has turned considerable attention to the role of policy mixes in shaping socio-technical systems towards sustainability. However, the identification of relevant policy intervention points has remained a relatively neglected topic. This is a potentially significant oversight given that such intervention points constitute a mid-step between means (particular policy instruments) and overall goals (change in the directionality of sociotechnical systems). By complementing existing work on policy mixes with additional insights from transitions literature, this paper formulates a conceptual framework of six policy intervention points for transformative systems change. The coding scheme developed on the basis of this framework is used to review current literature on policy mixes in sustainability transitions. It is shown that the latter has so far primarily focused on niche-regime dynamics while largely neglecting the broader context of these interactions. We argue that adopting a wider perspective on intervention points can aid future work on policy mixes by enabling the identification of root causes and critical problems of ongoing transitions, and to spot gaps in existing policy activities. The case of the Estonian energy system is used to briefly illustrate these possibilities. Methodologically, we demonstrate the value of combining theory-based concept-formation with a systematic literature review, enabling not only a provision of a summary of existing literature but also highlighting systematic gaps in that literature.

Kapoor, Rahul; Klueter, Thomas (2020):

### Progress and setbacks. The two faces of technology emergence.

In: *Research Policy* 49 (1), S. 103874. DOI: 10.1016/j.respol.2019.103874.

#### Abstract:

Emerging technologies are an important driver of economic growth. However, the process of their emergence may not only be characterized by technological progress but also by setbacks. We offer a perspective on technology emergence that explicitly incorporates setbacks into the technology's evolution and explains how industry participants may react to setbacks in emerging technologies. We consider that the locus of innovation in an emerging technology encompasses different types of organizations (industry incumbents, entrants and public research organizations (PROs)) who operate in different institutional environments, and explore how these organizations react to setbacks in terms of their R&D efforts. We study two emerging biotechnologies in the global pharmaceutical industry - gene therapy (GT) and monoclonal antibodies (mAbs). The emergence of both technologies during the 1990s was punctuated by periods of setbacks. We observe a gradual increase in industry participants' R&D efforts during periods of progress and a significant decline in those efforts immediately following setbacks. The decline in R&D efforts was more pronounced for firms than for PROs as well as for those firms that were listed on the stock market in contrast to those that were privately financed. Finally, the decline in R&D efforts towards GT was much more pronounced for those organizations located in countries with high capital fluidity.

These findings reinforce that organizational and institutional characteristics that are typically attributed to facilitate R&D efforts towards emerging technologies do induce greater levels of those efforts during periods of progress. However, the same characteristics are also associated with a significant decline in R&D efforts immediately following periods of setbacks. Overall, the study illustrates how setbacks reconfigure the locus of innovation in emerging technologies and offers a richer perspective on technology emergence as one that is rooted in both progress and setbacks. In so doing, it highlights the challenges of sustaining technological progress and offers guidance for policy.

Ke, Qing (2020):

#### Technological impact of biomedical research. The role of basicness and novelty.

In: *Research Policy* 49 (7), S. 104071. DOI: 10.1016/j.respol.2020.104071.

##### *Abstract:*

An ongoing interest in innovation studies is to understand how knowledge generated from scientific research can be used in the development of technologies. While previous inquiries have devoted to studying the scientific capacity of technologies and institutional factors facilitating technology transfer, little is known about the intrinsic characteristics of scientific publications that gain direct technological impact. Here we focus on two features, namely basicness and novelty. Using a corpus of 3.8 million papers published between 1980 and 1999, we find that basic science papers and novel papers are substantially more likely to achieve direct technological impact. Further analysis that limits to papers with technological impact reveals that basic science and novel science have more patent citations, experience shorter time lag, and have impact in broader technological fields.

Kerr, Sari Pekkala; Kerr, William (2020):

#### Immigrant entrepreneurship in America. Evidence from the survey of business owners 2007 & 2012.

In: *Research Policy* 49 (3), S. 103918. DOI: 10.1016/j.respol.2019.103918.

##### *Abstract:*

We study immigrant entrepreneurship in 2007 and 2012 using the Survey of Business Owners. First-generation immigrants create about 25% of new firms in America, but this share exceeds 40% in some states. Conditional on basic regression controls, immigrant-owned firms tend to create fewer jobs than native-owned firms, have comparable pay levels, offer fewer benefits, and engage more in international activities. Prominent tech clusters display quite pronounced shares of immigrant entrepreneurs. Our results suggest that most of the impact of immigrant high-tech entrepreneurship for tech centers happens through the quantity dimension: Silicon Valley and similar tech hubs attract many immigrant founders.

Koch, Leonie; Simmler, Martin (2020):

#### How important are local knowledge spillovers of public R&D and what drives them?

In: *Research Policy* 49 (7), S. 104009. DOI: 10.1016/j.respol.2020.104009.

##### *Abstract:*

This paper analyzes the magnitude of local knowledge spillovers of public R&D in Germany and its determinants using patent application data. We identify three distinct transmission channels. First, firms file more patent applications when collaborating with (local) public institutions. Second, firms file more patent applications when citing a public patent. Third, local public R&D seems to increase the number of patent applications by local firms also via non-specific knowledge spillovers. Using a fixed effect instrumental variable regression approach, we find evidence for substantial local spillovers and that these are driven by non-specific knowledge spillovers.

Kok, Holmer; Faems, Dries; Faria, Pedro de (2020):

**Ties that matter. The impact of alliance partner knowledge recombination novelty on knowledge utilization in R&D alliances.**

In: *Research Policy* 49 (7), S. 104011. DOI: 10.1016/j.respol.2020.104011.

*Abstract:*

Whereas extant alliance research tends to consider the knowledge pool of partner firms as a set of independent components, we highlight that alliance partners' components are interconnected. In particular, we introduce the concept of alliance partner knowledge recombination novelty - i.e., the extent to which an alliance partner has created component ties that no other firm within the industry has created - and hypothesize that it has an inverted U-shaped relationship with the focal firm's utilization of the alliance partner's knowledge. We also expect this relationship to be moderated by the focal firm's own knowledge recombination novelty. Analyzing 313 R&D alliance dyads of 70 firms in the fuel cell industry, we find support for the hypothesized inverted U-shaped relationship between an alliance partner's knowledge recombination novelty and the focal firm's knowledge utilization from the alliance partner. However, we do not find support for a moderation effect of the focal firm's knowledge recombination novelty. Based on these findings, we demonstrate the importance of framing alliance partner knowledge pools as sets of interconnected components, where alliance partners' history of knowledge recombination shapes the focal firm's knowledge utilization rates.

Kwak, Kiho; Yoon, Hyungseok (2020):

**Unpacking transnational industry legitimacy dynamics, windows of opportunity, and latecomers' catch-up in complex product systems.**

In: *Research Policy* 49 (4), S. 103954. DOI: 10.1016/j.respol.2020.103954.

*Abstract:*

This paper posits that the combination of changes in a forerunner's industry legitimacy and a latecomer's efforts to endogenise windows of opportunity allows the latecomer to evolve from a turnkey importer to a global exporter. Our theoretical assertions are supported by analysing Korea as a latecomer in the nuclear power industry. We show that both an increase and a decrease in a forerunner's industry legitimacy provides exogenous windows of opportunity for the latecomer to access a forerunner's knowledge base. In particular, the decrease in a forerunner's industry legitimacy provides a critical opportunity for the latecomer to acquire core technology. In addition, our analysis shows some interesting findings on the latecomer's endogenisation of windows of opportunity through the lens of technological innovation systems. This study advances a more fine-grained view on catch-up theory by shedding new light on the implications of transnational industry legitimacy dynamics and windows of opportunity for a latecomer's catch-up in complex product systems.

Laursen, Keld; Leten, Bart; Nguyen, Ngoc Han; Vancauteran, Mark (2020):

**Mounting corporate innovation performance. The effects of high-skilled migrant hires and integration capacity.**

In: *Research Policy* 49 (9, SI), S. 104034. DOI: 10.1016/j.respol.2020.104034.

*Abstract:*

We adopt an organizational learning approach to examine how firms' recruitment of high-skilled migrants contributes to subsequent firm-level innovation performance. We argue that due to migrants' often different experience from that of native high-skilled workers, their perspectives on problem-solving and access to non-overlapping knowledge networks will also differ. The implied complementarity between these worker types makes migrant hires a particularly valuable resource in the context of firm-level innovation. We refine our diversity hypothesis further by predicting that migrant hires who add to the firm's cultural diversity should contribute more to firm innovation performance than new high-skilled migrant hires who do not add cultural diversity. Finally, we conjecture that firms with high integration capacity as a function of prior experience of employing high-skilled migrants should derive more innovation-related benefits from migrant hiring than firms with a low integration capacity. We track the inward mobility of high-skilled workers empirically using patents and matched employer-employee data for 16,241 Dutch firms over an 11-year period. We find support for our hypotheses.



Le Gallo, Julie; Plunket, Anne (2020):

**Regional gatekeepers, inventor networks and inventive performance. Spatial and organizational channels.**

In: *Research Policy* 49 (5), S. 103981. DOI: 10.1016/j.respol.2020.103981.

*Abstract:*

It is increasingly emphasized that the innovative performance of regions depends on the right balance between local development and external openness. The paper contributes to this discussion by exploring how regional gatekeepers contribute to inventive performance through their intermediation role as they establish extra-local linkages in addition to their local embeddedness. More specifically, we investigate whether firms benefit from the gatekeeping position of their inventors. To do so, we identify corporate inventors with a gatekeeper position, and study whether their presence in inventor teams affects the quality of inventions and differs when gatekeepers cross organizational (intrafirm, interfirm versus science-industry) and/or regional boundaries (one or multiple regions). Our results show that gatekeepers have a higher impact on the quality of inventions when they work for firms involved in inter-firm collaborations unlike external stars who have either no effect or a negative impact on inventive quality.

Leahey, Erin; Barringer, Sondra N. (2020):

**Universities' commitment to interdisciplinary research. To what end?**

In: *Research Policy* 49 (2), S. 103910. DOI: 10.1016/j.respol.2019.103910.

*Abstract:*

In recent decades, research universities have been engaged in fostering interdisciplinary research (IDR) in an attempt to support high-impact research that can benefit not only the greater good, but also their bottom line. A common way to enhance "interdisciplinary momentum" and foster IDR is to alter the organizational structure and its basic units: departments and centers. What are the consequences of such structural changes? In short, we do not know. To date there has been no large-scale quantitative assessment of whether and how universities' commitments to interdisciplinary research are successful in fostering interdisciplinary research. To address this gap within the literature, we collect a wealth of numeric and textual data on 156 research universities nationwide to assess whether structural commitments to IDR influence general research activity (e.g., publications, external grants) as well as interdisciplinary research activity. Our results suggest that structural commitment to IDR does indeed produce some of its intended effects. We found that universities' commitment to IDR, as manifested in their organizational structure (i.e., the number and interdisciplinary nature of key research units: departments and centers), spurs both scholarly research and NIH grant activity in general, and interdisciplinary research and NIH grant activity in particular. These results suggest that efforts to develop and reorganize academic units are not futile; rather, when value commitments are made tangible via foundational research units like departments and centers, they can have their intended consequences.

Lee, Joon Mahn; Kim, Jongsoo; Bae, Joonhyung (2020):

**Founder CEOs and innovation. Evidence from CEO sudden deaths in public firms.**

In: *Research Policy* 49 (1), S. 103862. DOI: 10.1016/j.respol.2019.103862.

*Abstract:*

Using a unique dataset on U.S. publicly listed firms that experienced sudden deaths of CEOs during the 1979-2002 period, this paper investigates the relationship between founder CEOs and innovation in public firms. Our main results show that the exogenous change from a founder CEO to a professional CEO is associated with a 43.8% decrease in a firm's citation-weighted patent count, even when controlling for R&D expenditures, suggesting that founder CEOs are better managers of innovations than professional CEOs. To better understand the relationship, we also explore plausible mechanisms that may underlie this relationship. Our analyses show that founder-CEO-managed firms are more likely to generate innovations at the both tails of innovations' quality distribution (highest and lowest quality patents) and explorative patents than professional-CEO-managed firms. We also determine that change in leadership from a founder CEO to a professional CEO leads employee inventors to leave the firm, suggesting that founder CEOs are better at retaining innovative minds than professional CEOs. However, we do not find evidence that founder-CEO-managed firms allocate more capital to R&D investments than professional-CEO-managed firms.

Lo, Jade Y.; Nag, Rajiv; Xu, Lei; Agung, Shanti D. (2020):

Organizational innovation efforts in multiple emerging market categories. Exploring the interplay of opportunity, ambiguity, and socio-cognitive contexts.

In: *Research Policy* 49 (3), S. 103911. DOI: 10.1016/j.respol.2019.103911.

*Abstract:*

Industries with emerging market categories offer greater opportunities for firms to innovate. However, such opportunities are not a matter of “the more, the better.” An increasing number of emerging market categories poses a dilemma. While more emerging market categories arguably bring about increasing growth opportunities, they can also generate greater ambiguity for incumbent firms, which may hinder their innovation efforts. This study attempts to address this dilemma by proposing that the number of emerging market categories in an industry will have an inverted U-shaped relationship with incumbent firms’ innovation efforts. We further argue that this curvilinear relationship will be influenced by the socio-cognitive context of a firm’s focal industry, in the sense that the degree of collective identity incoherence at the industry level will intensify the proposed inverted U-shaped relationship, whereas the prevalence of trade associations in the industry will depress this relationship. We test our hypotheses by examining research and development (R&D) investments of a sample of U.S. high-technology manufacturing firms and find support for our main prediction and the hypothesized effect of collective identity incoherence. We also find a surprising but intriguing moderating effect of trade associations.

Lucas, David S.; Boudreaux, Christopher J. (2020):

National regulation, state-level policy, and local job creation in the United States. A multilevel perspective.

In: *Research Policy* 49 (4), S. 103952. DOI: 10.1016/j.respol.2020.103952.

*Abstract:*

The relationship between national regulation and job creation remains highly debated. The “public choice” perspective holds that regulation hinders job creation through compliance costs and regulatory capture. Meanwhile, the “public interest” view suggests that regulation can facilitate employment growth by promoting innovation and fair competition. We offer a contingency perspective, i.e., that national regulation’s effects vary across heterogeneous state political institutions. Drawing on the political science theory of market-preserving federalism, we argue that state-level economic freedom moderates the effects of national regulation on local net job creation. Using U.S. data, we find support for this moderating hypothesis. National regulation destroys jobs on net in states with low economic freedom. However, national regulation has no effect in states with high economic freedom; this effect holds for tax freedom and labor market freedom. The moderation is concentrated among mature firms rather than young firms, and in metro counties rather than non-metro counties; furthermore, it is robust across multiple regulatory measures and instrumental variables approaches. Our work reveals that state political institutions have an underappreciated influence on the costs of national regulation, demonstrating the interdependence of policies for local economic development.

Manez, J. A.; Love, J. H. (2020):

Quantifying sunk costs and learning effects in R&D persistence.

In: *Research Policy* 49 (7), S. 104004. DOI: 10.1016/j.respol.2020.104004.

*Abstract:*

This paper analyzes and quantifies the fundamental factors that are likely to cause persistence in performing R&D activities: the existence of sunk costs associated with R&D activities and the process of learning that characterizes this type of activity. We estimate our model with Spanish manufacturing firms for the period 1991–2014. By decomposing the effects of sunk costs and learning effects, we find that both are important determinants of R&D persistence, and that failing to allow for learning systematically overestimates sunk cost effects. Both large firms and SMEs benefit from direct and indirect (via productivity) effects of R&D experience, but in large firms this is more likely to be manifest through productivity improvements while in smaller firms the effect is more skewed towards a direct effect on R&D likelihood. Further, our results suggest that whereas the impact of sunk costs in R&D persistence is greater for large firms than for SMEs, the scope for direct learning from continuous R&D engagement is greater for SMEs than for larger firms.

March, Raymond J.; Geloso, Vincent (2020):

**Gordon Tullock meets Phineas Gage. The political economy of lobotomies in the United States.**

In: *Research Policy* 49 (1), S. 103872. DOI: 10.1016/j.respol.2019.103872.

**Abstract:**

Incentives affect the ways in which scientific research is disseminated and translated into practice. From 1936 to 1972, approximately fifty thousand lobotomies were performed in the US, with the majority occurring during the late 1940s and early 1950s. Curiously, the lobotomy's popularity coincided with a consensus within the medical community that the procedure was ineffective. To explain this paradox, we follow the framework developed by Tullock (2005) to examine how financial incentives within the scientific community affected how scientific research is used in practice. We argue that government funding for public mental hospitals and asylums expanded and prolonged the use of the lobotomy, despite mounting scientific evidence. We demonstrate that the lobotomy was used less in private mental hospitals and asylums. This paper provides an explanation for the use of scientifically discredited procedures due to the lack of responsiveness of government funding agencies. The results have implications for the dissemination and translation of scientific knowledge in practice.

Marino, Alba; Mudambi, Ram; Perri, Alessandra; Scalera, Vittoria G. (2020):

**Ties that bind. Ethnic inventors in multinational enterprises' knowledge integration and exploitation.**

In: *Research Policy* 49 (9, SI), S. 103956. DOI: 10.1016/j.respol.2020.103956.

**Abstract:**

Geographically dispersed reservoirs of knowledge represent significant opportunities for multinational enterprises (MNEs), both in terms of feeding the firm's innovation process, as well as adapting technology to new markets. They face serious challenges in accomplishing these tasks, due to the well-known barriers associated with the transfer of knowledge out of its local context. We argue that ethnic inventors might play a role in alleviating these challenges, by acting as a bridge between their countries of origin (CoO) and the MNE headquarters. Using USPTO data on internationally connected patents granted to US-based MNEs operating in knowledge-intensive industries over the period 1975-2009, our empirical exercise shows that patents involving ethnic inventors from a given CoO are associated with greater integration of knowledge originating from that CoO in the MNE innovation process. Further investigation indicates that this effect is probably limited to knowledge developed within the MNE's network, suggesting that ethnic ties - per se - might not be sufficiently powerful to overcome the joint barriers of national borders and organizational boundaries. Finally, our analysis reveals that ethnic inventors may also be associated with knowledge exploitation in their CoO. This mainly seems to occur in CoOs plagued by market-related institutional voids.

Masucci, Monica; Brusoni, Stefano; Cennamo, Carmelo (2020):

**Removing bottlenecks in business ecosystems. The strategic role of outbound open innovation.**

In: *Research Policy* 49 (1), S. 103823. DOI: 10.1016/j.respol.2019.103823.

**Abstract:**

This paper investigates how firms can orchestrate outbound open innovation strategically to accelerate technological progress among the firms they collaborate with, thus removing technological bottlenecks in their business ecosystem. We examine how a major oil and gas producer fostered, through its internal corporate venture unit, the development of new technologies aimed at enhancing the effectiveness of the oilfield services offered by its key providers. The comparative analysis of five innovative projects suggests that two factors were critical for the successful deployment of the proposed technologies: their potential to broaden service providers' portfolios and the possibility to retain control over the relevant intellectual property. The concurrent presence of these two factors incentivized service providers to deploy the new technologies, aligning their interests with those of the oil major company. By revealing unexplored aspects of the interplay of inter-firm collaborations and open innovation processes, this paper extends our understanding of how firms can align the incentives and activities of other actors in their business ecosystems by strategizing their open innovation initiatives.

Maurseth, Per Botolf; Svensson, Roger (2020):

### The Importance of Tacit Knowledge. Dynamic Inventor Activity in the Commercialization Phase.

In: *Research Policy* 49 (7), S. 104012. DOI: 10.1016/j.respol.2020.104012.

#### Abstract:

Inventors generally know more about their inventions than what is written down in patent applications. Because they possess this tacit knowledge, inventors may need to play an active role when patents are commercialized. We build on Arora (1995) and model firm-inventor cooperation in the commercialization of a given invention. Tacit knowledge warrants inventor activity. However, imperfect IPRs may reduce inventors' incentives to engage in the commercialization process. We analyze when first-best inventor activity is achieved in a two-stage contract. In the empirical part, we analyze when inventor activity is important for the successful commercialization of patents by using a detailed patent database. The database contains unique information on inventor activity, patent commercialization modes and the profitability of commercialization. In the empirical estimations, we find that inventor activity has a strong positive correlation with profitability when a patent is sold or licensed to another firm. When a patent is sold or licensed in the second phase, it is still inventor activity in the first phase that matters for profitability. Thus, our interpretation is that tacit knowledge and close cooperation between inventors and external firms are often crucial for the successful commercialization of patents.

Migueluez, Ernest; Temgoua, Claudia Noumedem (2020):

### Inventor migration and knowledge flows. A two-way communication channel?

In: *Research Policy* 49 (9, SI), S. 103914. DOI: 10.1016/j.respol.2019.103914.

#### Abstract:

This paper documents the influence of networks of highly skilled migrants on the international diffusion of knowledge - particularly those with degrees and occupations in science, technology, engineering and mathematics. It investigates knowledge inflows to host countries brought in by skilled immigrants. It then explores knowledge feedback to home countries generated by these migrants. We test our hypotheses in a country-pair gravity model setting, for the period 1990-2010, using patent citations across countries to measure international knowledge diffusion. Our results confirm our hypotheses on the positive impact of skilled migrants on knowledge flows to host and home countries. However, the former are not robust to instrumental variables and country-pair fixed-effects, and only matter in certain contexts: when the sending countries are developing nations and for knowledge diffusion within the boundaries of multinationals.

Miller, Fiona A.; Lehoux, Pascale (2020):

### The innovation impacts of public procurement offices. The case of healthcare procurement.

In: *Research Policy* 49 (7), S. 104075. DOI: 10.1016/j.respol.2020.104075.

#### Abstract:

Interest in public procurement's role in innovation has been reinforced by the directional turn in innovation policy, which highlights the social purpose of innovation. Procurement-induced innovation may often be a by-product of the pursuit of other policy goals, especially in sectors that are highly dependent on innovation, such as healthcare. Yet the tendency of innovation scholarship to focus at macro-levels, and on R&D-intensive innovation, means that the ways in which procurement routinely affects innovation - whether positively or negatively - are not fully understood. A particular scholarly lacuna relates to the role of the procurement office, which is often characterized as a more-or-less effective conduit for the knowledge and imperatives of others, notably users and vendors. Literature from innovation policy studies, which highlights the importance of implementation and administration for realizing innovation policy aims, alongside the burgeoning field of valuation studies, suggests that these offices may have a more substantive effect. We explored the role of the procurement office in innovation in the healthcare sector, which is highly dependent on innovation but retains the delivery of a high quality public service as its primary goal. We used an embedded case study design across four provinces in Canada, involving document review, ethnographic observation and key informant interviews (n=32). We first review how procurement offices engage and shape markets, then turn to the critical ways in which this market-shaping capacity is enabled through demand shaping activities that are negotiated within health systems. We argue that procurement offices act as professional intermediaries wielding calculative devices to set up the parameters of purchasing situations and to render certain measures of worth calculable through purchasing specifications. In doing so, they configure demand, conjure supply, and shape markets over time. Thus, they have a systemic impact on innovation. Yet while always present, the

strength of the procurement office's impact is not unlimited, being constrained by powerful constituencies within health systems and cost-cutting pressures placed on public sector procurement more generally. We suggest that acknowledging the substantive importance of procurement offices in innovation may be an important first step in unleashing their capacity to support it.

Mueller-Langer, Frank; Scheufen, Marc; Waelbroeck, Patrick (2020):

**Does online access promote research in developing countries? Empirical evidence from article-level data.**

In: *Research Policy* 49 (2), S. 103886. DOI: 10.1016/j.respol.2019.103886.

*Abstract:*

Universities in developing countries have rarely been able to subscribe to academic journals in the past. The “Online Access to Research in the Environment” initiative (OARE) provides institutions in developing countries with free online access to more than 11,500 environmental science journals. We analyze the effect of OARE on (1) scientific output and (2) scientific input as a measure of accessibility in five developing countries. We apply difference-in-difference-in-differences estimation using a balanced panel with 249,000 observations derived from 36,202 journal articles published by authors affiliated with 2,490 research institutions. Our approach allows us to explore effects across scientific fields, i.e. OARE vs. non-OARE fields, within institutions and before and after OARE registration. Variation in online access to scientific literature is exogenous at the level of scientific fields. We provide evidence for a positive marginal effect of online access via OARE on publication output by 29.6% with confidence interval (18.5%, 40.6%) using the most conservative specification. This adds up to 2.07 additional articles due to the OARE program for an average institution publishing 7.0 articles over the observation period. Moreover, we find that OARE membership eases the access to scientific content for researchers in developing countries, leading to an increase in the number of references by 8.4% with confidence interval (5.6%, 11.2%) and the number of OARE references by 14.5% with confidence interval (7.5%, 21.5%). Our results suggest that productive institutions benefit more from OARE and that the least productive institutions barely benefit from registration.

Nagler, Markus; Sorg, Stefan (2020):

**The disciplinary effect of post-grant review. Causal evidence from European patent opposition.**

In: *Research Policy* 49 (3), S. 103915. DOI: 10.1016/j.respol.2019.103915.

*Abstract:*

We study the causal impact of invalidating marginally valid patents during post-grant opposition at the European Patent Office on affected inventors' subsequent patenting. We exploit exogenous variation in invalidation by leveraging the participation of a patent's original examiner in the opposition division as an instrument. We find a disciplinary effect of invalidation: Affected inventors file significantly fewer patent applications in the decade after the decision. The effect is entirely driven by a reduction in low-quality filings, i.e., filings that examiners associate with prior art that threatens the application's novelty or inventive step. We do not observe shifts into national patenting.

Naldi, Lucia; Criaco, Giuseppe; Patel, Pankaj C. (2020):

**Related and unrelated industry variety and the internationalization of start-ups.**

In: *Research Policy* 49 (10, SI), S. 104050. DOI: 10.1016/j.respol.2020.104050.

*Abstract:*

We study the relationship between industry variety in a start-up's home location and the start-up's internationalization in terms of both the likelihood of and persistence in exporting. Using a unique sample of Swedish start-ups, we find that related industry variety is positively associated with exporting likelihood and persistence, whereas unrelated industry variety is positively associated with exporting likelihood and persistence when the start-ups' employees possess technological knowledge. We also find that employees' international experience strengthens the positive relationship between related industry variety and start-ups' export persistence. We provide auxiliary evidence of the proposed mechanisms through which related and unrelated industry variety affects start-ups' internationalization—that is, through

their effects on start-ups' ability to launch novel products in foreign markets. The findings of our study provide policymakers preliminary evidence on the value of developing and sustaining local knowledge conditions and promoting labor recruitment policies in the home country to promote start-up internationalization.

Nasirov, Shukhrat (2020):

**Trademark value indicators. Evidence from the trademark protection lifecycle in the US pharmaceutical industry.**

In: *Research Policy* 49 (4), S. 103929. DOI: 10.1016/j.respol.2020.103929.

*Abstract:*

This work identifies and studies the determinants of trademark value. In particular, it focuses on trademark characteristics that are related to the underlying brand and on legally stipulated characteristics. To reveal the value implications of the identified trademark characteristics, it follows the idea that more valuable trademarks tend to be protected for a longer period than less valuable trademarks, provided that the benefits of this protection exceed its costs. Thus, those characteristics that have a positive association with the duration of trademark protection should indicate more valuable trademarks. The empirical analysis relies on studying trademark activities in the U.S. pharmaceutical industry, largely owing to its heavy reliance on product differentiation to compete in the market. The results suggest that trademark characteristics are an important predictor of trademark value. At the same time, the value interpretation of some characteristics depends on the stage of the trademark protection lifecycle (that is, registration, maintenance, or renewal) under consideration.

Nilsen, Oivind A.; Raknerud, Arvid; Iancu, Diana-Cristina (2020):

**Public R&D support and firm performance. A multivariate dose-response analysis.**

In: *Research Policy* 49 (7), S. 104067. DOI: 10.1016/j.respol.2020.104067.

*Abstract:*

We analyse all the major sources of direct and indirect research and development (R&D) support to the business enterprise sector in a single country, Norway, for the period 2002-2013, treating the financial support for R&D from several instruments as a multivariate dose exposure. The output additionality of support to incumbent firms that regularly perform R&D (R&D-incumbents), which obtain about 65 per cent of all R&D support to business enterprises, is insignificant for any instrument or policy mixture. However, the estimated additionality of support to R&D-starters (firms without prior R&D activity), which obtain about 30 per cent of all R&D support, is generally positive. In this firm category, the main instruments for direct R&D support in Norway generate significantly less output and economic activity per NOK 1 million in support than do tax credits, despite the fact these instruments manage large project portfolios at considerable administrative costs. We do not identify positive effects of R&D support on labour productivity or the return on assets for any of the instruments. Our main policy implication is that R&D instruments for the business enterprise sector should be designed in favour of R&D-starters over R&D-incumbents, that is, shifting the focus from the intensive to the extensive margin.

Nowacki, Caroline; Monk, Ashby (2020):

**Ambidexterity in government. The influence of different types of legitimacy on innovation.**

In: *Research Policy* 49 (1), S. 103840. DOI: 10.1016/j.respol.2019.103840.

*Abstract:*

Using a comparative case study of four independent infrastructure agencies in Australia, this article explores how governments can use structural ambidexterity to innovate. Independent agencies can serve as exploration units, but their innovation needs to be integrated into the rest of government. Instead of relying on an executive team to do it, independent agencies can take on this role, but they need to become legitimate to several government actors to influence government processes. Legitimacy can come from regulations, practical value, moral values or cognitive frames. Relying on regulations solely reduces influence; but relying on cognitive legitimacy leads to losing ones ability to radically innovate. We

conclude that leading both exploration and integration relies on the exploration unit employees' practical and moral legitimacy to several actors, and their ability to maintain cognitive distance from other governmental units. However, we caution that such a balance is hard to sustain over the long run, leading many innovative agencies to appeal to cognitive legitimacy and revert to incremental innovation over time.

Orsatti, Gianluca; Quatraro, Francesco; Pezzoni, Michele (2020):

### The antecedents of green technologies. The role of team-level recombinant capabilities.

In: *Research Policy* 49 (3), S. 103919. DOI: 10.1016/j.respol.2019.103919.

#### *Abstract:*

Understanding the antecedents of green technologies is crucial for firms' green innovation strategies. The paper focuses on inventor teams' ability to recombine previous knowledge to innovate in the green domain. Exploiting patent data over the period 1995-2009, our results show that green technologies are, on average, more likely to be generated by teams that creatively recombine previous knowledge. Moreover, this effect is found to be moderated by teams' previous experience in the generation of green technologies, and by the stringency of the environmental policy framework. Our results bring implications for the strategic management of inventor teams within firms willing to grasp the opportunities set forth by the emergence of new markets for green technologies.

Osterloh, Margit; Frey, Bruno S. (2020):

### How to avoid borrowed plumes in academia.

In: *Research Policy* 49 (1), S. 103831. DOI: 10.1016/j.respol.2019.103831.

#### *Abstract:*

Publications in top journals today have a powerful influence on academic careers although there is much criticism of using journal rankings to evaluate individual articles. We ask why this practice of performance evaluation is still so influential. We suggest this is the case because a majority of authors benefit from the present system due to the extreme skewness of citation distributions. "Performance paradox" effects aggravate the problem. Three extant suggestions for reforming performance management are critically discussed. We advance a new proposal based on the insight that fundamental uncertainty is symptomatic for scholarly work. It suggests focal randomization using a rationally founded and well-orchestrated procedure.

Pantic-Dragisic, Svjetlana; Soderlund, Jonas (2020):

### Swift transition and knowledge cycling. Key capabilities for successful technical and engineering consulting?

In: *Research Policy* 49 (1), S. 103880. DOI: 10.1016/j.respol.2019.103880.

#### *Abstract:*

The organization of innovation labor is undergoing major changes in technology-based and engineering-intensive industries worldwide. Those changes reflect fluctuating market demands and increasing task uncertainty, and they are characterized by three related developments: externalization of the workforce, development of new types of employment relations, and greater use of technical consultants. These trends have led to the technical and engineering consulting (TEC) industry becoming a major player in the organization of innovation labor and thus also in the development and transfer of engineering knowledge. Determining what underlies the growth of this industry and the performance of TEC firms requires a better understanding of their nature and capabilities. Our paper builds on an in-depth case study spanning multiple organizational levels and incorporating 50 interviews with a leading Scandinavian TEC firm's top managers, middle managers, consultant managers, individual consultants, and clients as well as field observations and diary studies. These data lead us to posit two central capabilities associated with innovation labor in technical and engineering consulting: swift transition and knowledge cycling. The interplay between these capabilities, each of which arises from interactions between the firm level and the individual level, seems crucial for the successful development, organization, and supply of innovation labor and engineering knowledge.

Park, Jeong-Il (2020):

**Industrial diversity in building units and factors associated with diversity. A case study of the Seoul Metropolitan Area.**

In: *Research Policy* 49 (5), S. 103984. DOI: 10.1016/j.respol.2020.103984.

*Abstract:*

Whereas previous studies have not paid much attention to spatial units in buildings, and have merely measured diversity at the regional level, this study aims to calculate the industrial diversity in building units in the Seoul Metropolitan Area and examine the factors associated with such diversity using the multi-level model method. The results show that a vertical factory is an important industrial zone correlated strongly to diversity in building spaces. Industrial composition also positively associated with diversity. Industrial diversity tends to increase in technology-intensive industries, but decreases in traditional ones. Furthermore, this study reveals a pattern in which buildings with high diversity are spatially clustered in certain areas. Meanwhile, industrial parks have a negative association with diversity. High land prices also hinder the agglomeration of industries that aim for urban location, and may ultimately have a negative association with diversity.

Parrilli, Mario Davide; Balavac, Merima; Radicic, Dragana (2020):

**Business innovation modes and their impact on innovation outputs. Regional variations and the nature of innovation across EU regions.**

In: *Research Policy* 49 (8), S. 104047. DOI: 10.1016/j.respol.2020.104047.

*Abstract:*

This work contributes to the literature on innovation systems and, in particular, delivers a thorough analysis on business innovation modes across a range of regional contexts. This analysis refers to the strand of literature on STI (Science and Technology-based Innovation) and DUI innovation modes (Innovation based on learning-by-Doing, learning-by-Using, learning-by-Interacting) that have been intensely debated over the past few years. It is a relevant area of research because it discusses the most effective innovation mode adopted by firms and their regions in the context of increasing global competition. In this scientific area, we inquire whether and how the regional context and its specific technological capabilities produce a differentiated impact of STI and DUI innovation modes on innovation outputs, alongside the nature of innovation outputs. In this respect, this study advances the literature on regional innovation systems that have not been analyzed by other scholarly contributions in this strand who have mostly discussed the differentiated impact of innovation modes across individual countries, industries, and business networks. Based on the large heterogeneity of regions across the European geography, we move beyond the set of individual country studies and develop a thorough analysis based on the Community Innovation Survey (CIS 2014) data from the Eurostat office about EU regions. Empirical evidence based on the application of a multiple treatment model suggests that both regional specificities and the nature of innovation matter. In addition, the DUI innovation mode proves to be often more important than expected for most types of innovation output.

Pel, Bonno; Haxeltine, Alex; Avelino, Flor; Dumitru, Adina; Kemp, Rene; Bauler, Tom et al. (2020):

**Towards a theory of transformative social innovation. A relational framework and 12 propositions.**

In: *Research Policy* 49 (8), S. 104080. DOI: 10.1016/j.respol.2020.104080.

*Abstract:*

This paper responds to the need in innovation research for conceptual clarity and solid theory on social innovation (SI). The paper conceptualizes SI as changing social relations, involving new ways of doing, knowing, framing and organizing, and theorizes transformative social innovation (TSI) as the process of SI challenging, altering, or replacing dominant institutions in a specific social-material context. Three advances towards TSI theory are proposed. First, we reflect epistemologically on the challenges of theory-building, and propose an appropriate research design and methodology. Middle-range theory is developed through iteration between theoretical insights and comparative empirical study of 20 transnational SI networks and about 100 associated initiatives. Second, we synthesize various innovation theories and social theories into a relational framework that articulates the distributed agency and institutional hybridization involved. Third, we formulate twelve propositions on the emergence of SI initiatives, on the development of SI ecosystems, on institutionalization processes, and on the historical shaping of SI. The paper ends with a critical assessment of the advances made, also identifying further challenges for TSI theory and practice.



Perruchas, Francois; Consoli, Davide; Barbieri, Nicolo (2020):

### Specialisation, diversification and the ladder of green technology development.

In: *Research Policy* 49 (3), S. 103922. DOI: 10.1016/j.respol.2020.103922.

#### *Abstract:*

This paper elaborates an empirical analysis of the temporal and geographical distribution of green technology, and on how specific country characteristics enable or thwart environmental inventive activities. Using patent data on 63 countries over the period 1971-2012 we identify key drivers of cross-country diversification and specialisation. Our first finding is that countries diversify towards green technologies that are related to their existing competences. Notably, the degree of green technology maturity matters more than a country's level of development. The second main result is that countries move along cumulative paths of specialisation, and towards more mature green technologies. Interestingly, the complexity of green technologies is not an obstacle to further specialisation. This holds also for developing countries that are most exposed to climate change hazards.

Petralia, Sergio (2020):

### Mapping general purpose technologies with patent data.

In: *Research Policy* 49 (7), S. 104013. DOI: 10.1016/j.respol.2020.104013.

#### *Abstract:*

This article develops a three-dimension indicator to capture the main features of General Purpose Technologies (GPTs) in patent data. Technologies are evaluated based on their scope for improvement and elaboration, the variety of products and processes that use them, and their complementarity with existing and new technologies. Technologies' scope for improvement is measured using patenting growth rates. The range of its uses is mapped by implementing a text-mining algorithm that traces technology-specific vocabulary in the universe of all available patent documents. Finally, complementarity with other technologies is measured using the co-occurrence of technological claims in patents. These indicators are discussed and evaluated using widely studied examples of GPTs such as Electric & Electronic (at the beginning of the 20th century) and Computer & Communications. These measures are then used to propose a simple way of identifying GPTs with patent data. It is shown there exist a positive association between the rate of adoption of GPTs in sectors, measured in terms of the number of GPT patents, and their growth.

Poy, Samuele; Schueller, Simone (2020):

### Internet and voting in the social media era. Evidence from a local broadband policy.

In: *Research Policy* 49 (1), S. 103861. DOI: 10.1016/j.respol.2019.103861.

#### *Abstract:*

This paper analyzes the causal impact of broadband Internet on electoral outcomes beyond the introduction phase of broadband technology that is, in the social media era based on a local broadband policy. We exploit the staged infrastructure upgrade across rural municipalities in the Province of Trento (Italy), generating exogenous (spatial and temporal) variation in the provision of advanced broadband technology (ADSL2+). Using a difference-in-differences strategy, we find positive effects of ADSL2+ availability on overall electoral turnout at national parliamentary elections. Party vote analysis shows significant shifts across the ideological spectrum. These shifts, however, are likely transitory rather than persistent. Placebo estimates support a causal interpretation. Further evidence shows that the policy caused private broadband take-up at the extensive margin rather than a speed upgrade. We also provide evidence in support of social media use as a major mechanism for turnout effects.

Ribeiro, Barbara; Shapira, Philip (2020):

### Private and public values of innovation. A patent analysis of synthetic biology.

In: *Research Policy* 49 (1), S. 103875. DOI: 10.1016/j.respol.2019.103875.

*Abstract:*

Emerging science and technology fields are increasingly expected to provide solutions to societal grand challenges. The promise of such solutions frequently underwrites claims for the public funding of research. In parallel, universities, public research organizations and, in particular, private enterprises draw on such research to actively secure property rights over potential applications through patenting. Patents represent a claim to garner financial returns from the novel outcomes of science and technology. This is justified by the potential social value promised by patents as they encourage information sharing, further R&D investment, and the useful application of new knowledge. Indeed, the value of patents has generated longstanding academic interest in innovation studies with many scholars investigating its determinants based on econometric models. Yet, this research has largely focused on evaluating factors that influence the market value of patents and the gains from exclusivity rights granted to inventions, which reflect the private value of a patent. However, the patent system is a socially shaped enterprise where private and public concerns intersect. Despite the notion of the social utility of inventions as a patenting condition, and evidence of disconnection between societal needs and the goals of private actors, less attention has been paid to other interpretations of patent value. This paper investigates the various articulations of value delineated by patents in an emerging science and technology domain. As a pilot study, we analyse patents in synthetic biology, contributing a new analytical framework and classification of private and public values at the intersections of science, economy, and society. After considering the legal, business, social and political dimensions of patenting, we undertake a qualitative and systematic examination of patent content in synthetic biology. Our analysis probes the private and public value propositions that are framed in these patents in terms of the potential private and public benefits of research and innovation. Based on this framework, we shed light on questions of what values are being nurtured in inventions in synthetic biology and discuss how attention to public as well as private values opens up promising avenues of research in science, technology and innovation policy.

Roche, Maria P.; Conti, Annamaria; Rothaermel, Frank T. (2020):

Different founders, different venture outcomes. A comparative analysis of academic and non-academic startups.

In: *Research Policy* 49 (10, SI), S. 104062. DOI: 10.1016/j.respol.2020.104062.

*Abstract:*

What role do differences in founders' occupational backgrounds play in new venture performance? Analyzing a novel dataset of 2998 founders creating 1723 innovative startups in biomedicine, we find that the likelihood and hazard of achieving a liquidity event are lower for academic than for non-academic startups. However, academic startups produce as many patents and receive as much funding as non-academic startups, suggesting that the observed differences in achieving a liquidity event are not driven by differential invention performance. Exploiting heterogeneity among academic startups, we also find that differences between professor and student startups do not explain academic startups' comparatively low performance on the exit market vis-a-vis non-academic startups. Yet, startups founded by superstar professors perform similarly to non-academic startups on the exit market for new ventures, and better than startups founded by highly productive professors but without external certification.

Rueffin, Nicolas (2020):

EU science diplomacy in a contested space of multi-level governance. Ambitions, constraints and options for action.

In: *Research Policy* 49 (1), S. 103842. DOI: 10.1016/j.respol.2019.103842.

*Abstract:*

Science diplomacy recently has gained a remarkable foothold in European policymaking. Both the European Commission and many Member States use the term to label a whole range of issues and activities in their respective policies. This prompts the question what exactly is the current role of the European Commission in the field of external research policies as compared to the Member States traditionally in charge of it. The article draws on the conceptual framework of multi-level governance, in particular the distinction between Type I and Type II governance systems. The aim is to show that the well-established setups for science policy and foreign affairs in the EU at present channel most of the Commission's activities in ways that not run counter to the interests of the Member States. The institutionally set parameters entail a focus on existing programs and activities. However, the Type II character of science diplomacy governance in principle leaves room for changes in jurisdictions and the division of labor, which are subsequently discussed. The paper's argument

rests upon the qualitative analysis of expert interviews conducted with representatives from Member States, the Commission, Switzerland, and the US.

Sauermann, Henry; Vohland, Katrin; Antoniou, Vyron; Balazs, Balint; Goebel, Claudia; Karatzas, Kostas et al. (2020):

### Citizen science and sustainability transitions.

In: *Research Policy* 49 (5), S. 103978. DOI: 10.1016/j.respol.2020.103978.

#### Abstract:

Citizen Science (CS) projects involve members of the general public as active participants in research. While some advocates hope that CS can increase scientific knowledge production ("productivity view"), others emphasize that it may bridge a perceived gap between science and the broader society ("democratization view"). We discuss how an integration of both views can allow Citizen Science to support complex sustainability transitions in areas such as renewable energy, public health, or environmental conservation. We first identify three pathways through which such impacts can occur: (1) Problem identification and agenda setting; (2) Resource mobilization; and (3) Facilitating socio-technical co-evolution. To realize this potential, however, CS needs to address important challenges that emerge especially in the context of sustainability transitions: Increasing the diversity, level, and intensity of participation; addressing the social as well as technical nature of sustainability problems; and reducing tensions between CS and the traditional institution of academic science. Grounded in a review of academic literature and policy reports as well as a broad range of case examples, this article contributes to scholarship on science, innovation, and sustainability transitions. We also offer insights for actors involved in initiating or institutionalizing Citizen Science efforts, including project organizers, funding agencies, and policy makers.

Smith, Daniel (2020):

### The Effects of Federal Research and Development Subsidies on Firm Commercialization Behavior.

In: *Research Policy* 49 (7), S. 104003. DOI: 10.1016/j.respol.2020.104003.

#### Abstract:

This paper assesses the longer term (up to 14 years) causal impact of federal research and development (R&D) subsidies on firms' commercialization behavior. The data are for small firms which applied to the 1998-2000 Advanced Technology Program (ATP) competitions. A variant of the research design pioneered by Heckman (1979) allows for selection bias to be controlled for. Commercialization behavior is operationalized as the number of new product announcements related to the technology a firm mentions in its ATP proposal(s). The major finding is that receiving an ATP award has a positive and significant causal impact on a firm's commercialization behavior.

Solheim, Marte C. W.; Boschma, Ron; Herstad, Sverre J. (2020):

### Collected worker experiences and the novelty content of innovation.

In: *Research Policy* 49 (1), S. 103856. DOI: 10.1016/j.respol.2019.103856.

#### Abstract:

In this paper we investigate whether the novelty content of innovations introduced by Norwegian manufacturing firms reflect the composition of work-life experiences collected by employees. Distinguishing between 'related' (RV) and 'unrelated' (URV) variety and using employer-employee registers merged with Community Innovation Survey data to observe experiences prior to innovation strategies and results, we find the probability of incremental innovation increasing strongly with RV when firms are located in a large-city region. URV provide additional support for incremental innovation among firms that are not R&D active, and increases more generally the probability of radical (new-to-the world) innovation. However, these relationships flatten out at moderate levels, and the maximum impact of URV on radical innovation is limited compared to the average impact of firms' R&D efforts. Thus, whereas incremental innovation is highly receptive to related worker experiences when collected and combined in urban contexts, radical innovation depend to a larger degree on the innovation strategies and efforts of the firm itself.

Speldekamp, Daniel; Knob, Joris; Saka-Helmhout, Ayse (2020):

Clusters and firm-level innovation. A configurational analysis of agglomeration, network and institutional advantages in European aerospace.

In: *Research Policy* 49 (3), S. 103921. DOI: 10.1016/j.respol.2020.103921.

*Abstract:*

Clusters have the potential to strengthen firm innovation. However, our knowledge of how firms are affected by the external resources found in clusters, and how this relates to their level of internal resources, is limited. There are seemingly conflicting theoretical assumptions and empirical findings on both the individual and combined impact of these resources. Our paper seeks to reconcile these by adopting a configurational lens, allowing for multiple pathways to innovation. Applying fuzzy-set Qualitative Comparative Analysis (fsQCA) to a sample of firms in European aerospace clusters, we uncover that innovation outcomes can only be explained through combinations of internal assets, and external resources provided by geography, networks, and institutions. No single resource, in isolation, is sufficient. We distinguish between a total of seven pathways. These vary from weak firms benefitting from localized knowledge spillovers, to strong firms with extensive non-local networks. We find that the relationship between internal and external resources is causally complex, with even the potential for negative innovation impacts. Hence, we provide a first step towards harmonizing the literature's different approaches to understanding clusters' impact on firms.

Strambach, Simone; Pfritsch, Gesa (2020):

Transition topology. Capturing institutional dynamics in regional development paths to sustainability.

In: *Research Policy* 49 (7), S. 104006. DOI: 10.1016/j.respol.2020.104006.

*Abstract:*

A key challenge in sustainability transitions research is to better understand the huge variety and spatial unevenness of transitions paths. Institutions and institutional change have been identified as critical issues, as regional institutional settings significantly influence the pace and scope of sustainability transitions. However, the complex institutional dynamics underpinning Regional Transition Paths to Sustainability' (RTPS) are not well understood. Underexplored is in particular the link between short time gradual changes on the micro-level and long-term transformative change on the system level. In order to add to a more profound understanding of these processes, a focus on organizational change is valuable. The basic argument made in this article is that the emergence of new temporary and more permanent forms of organization has the potential to enable de-institutionalization and new institutionalization processes simultaneously. As we will show, new organizational forms also serve as a means to make institutional dynamics visible. The contribution of this paper is thus twofold: By combining insights from sustainability transition theory, evolutionary economic geography and neoinstitutional organization theory, we develop an original conceptual framework. By developing and applying the methodological approach of a 'transition topology', the potential of this framework for comparative research on actors and processes in different regional transition path to sustainability is revealed.

Szuecs, Florian (2020):

Do research subsidies crowd out private R&D of large firms? Evidence from European Framework Programmes.

In: *Research Policy* 49 (3), S. 103923. DOI: 10.1016/j.respol.2020.103923.

*Abstract:*

We evaluate whether public research subsidies are complements or substitutes to the private R&D spending of large firms. Combining data on the EC's three most recent Framework Programmes (FP6, FP7 and H2020) with data on the world's largest research companies, we use matching and difference-in-difference estimation to compute the causal impact of subsidies on private R&D spending. While, on average, subsidies have not led to increased private research budgets, we identify policy-relevant heterogeneities, finding that subsidies increased own R&D for smaller firms and projects as well as more R&D-intensive firms. We also find that Horizon 2020 successfully stimulated firms' private R&D spending, while its predecessors did not.

Taalbi, Josef (2020):

### Evolution and structure of technological systems. An innovation output network.

In: *Research Policy* 49 (8), S. 104010. DOI: 10.1016/j.respol.2020.104010.

#### *Abstract:*

The mechanisms responsible for the structure and evolution of technological systems are not fully understood. This study examines the network of supply and use of significant innovations across industries in Sweden, 1970-2013. The results suggest that at least 30% of innovation patterns can be statistically predicted by network stimulus from both backward and forward linkages in the Swedish economy. The network is hierarchical, characterized by hubs that connect diverse industries in closely knitted communities. To account for the structure and evolution of innovation networks, the study proposes a preferential weight assignment process, allowing historical technological linkages and proximities to influence future outcomes. The empirical results show that the properties of the Swedish innovation network are strongly predicted by this process, while skill, knowledge and economic interdependencies have significant but more complex effects on link formation. The results are consistent with the idea that innovations emerge in synergistic communities, but suggest that the transformation of technological systems is shaped by technological requirements, imbalances, and opportunities that are not straightforwardly related to other economic or knowledge proximities.

Ugur, Mehmet; Churchill, Sefa Awaworyi; Luong, Hoang M. (2020):

### What do we know about R&D spillovers and productivity? Meta-analysis evidence on heterogeneity and statistical power.

In: *Research Policy* 49 (1), S. 103866. DOI: 10.1016/j.respol.2019.103866.

#### *Abstract:*

As Mohnen (1996: 40) has indicated, research and development (R&D) externalities is a two-sided theoretical issue. Its 'dark' side concerns the under-investment problem caused by non-appropriability of R&D benefits. On the 'bright' side, R&D spillovers are a source of productivity gains. Both aspects have been invoked to justify public support for R&D investment directly and indirectly. To establish whether public support can be justified due to productivity gains from spillovers, we meta-analyse 983 productivity estimates for spillovers and 501 estimates for own-R&D from 60 empirical studies. Our findings indicate that the average spillover effect is: (i) positive but heterogenous and smaller than what is reported in most narrative reviews; (ii) usually smaller than that of own-R&D capital; (iii) too small to be practically significant when evidence with adequate statistical power is considered. Controlling for observable sources of heterogeneity and best-practice research, the meta-effect is insignificant in the full sample but significant and large among OECD firms/industries/countries. We discuss the implications of these findings for future research and public support for R&D investment.

Uyarra, Elvira; Zabala-Iturriagoitia, Jon Mikel; Flanagan, Kieron; Magro, Edurne (2020):

### Public procurement, innovation and industrial policy. Rationales, roles, capabilities and implementation.

In: *Research Policy* 49 (1), S. 103844. DOI: 10.1016/j.respol.2019.103844.

#### *Abstract:*

Recent thinking about innovation and industrial policy emphasises purposeful related diversification strategies or more transformative but potentially riskier challenge-orientated policies. Meanwhile public procurement is increasingly seen as a key means of fostering innovation. We conceptualize the multiple roles of public procurement in an innovation policy landscape shaped by these emerging rationales, and explore the complexities and institutional work associated with its implementation. We identify some possible roles for government in fostering diversification and transformation through public procurement and explore the implementation challenges of institutionalising public procurement as part of innovation policy. Both the multiple potential roles of public procurement and the institutional work associated with its implementation are illustrated with the case of Galicia, Spain.

van Rijnsoever, Frank J. (2020):

Meeting, mating, and intermediating. How incubators can overcome weak network problems in entrepreneurial ecosystems.

In: *Research Policy* 49 (1), S. 103884. DOI: 10.1016/j.respol.2019.103884.

*Abstract:*

To promote economic growth and overcome societal challenges, policy-makers often try to shape an entrepreneurial ecosystem (EE) that will facilitate technological entrepreneurship. An EE consists of a knowledge subsystem and a business subsystem, which are often unconnected. A financial support network (FSN) consisting of startups and private venture capitalists can bridge two subsystems and thus enable critical technology transfer in EEs. These FSNs remain underdeveloped in many European regions, however; the literature on innovation systems refers to this lack of connectivity as a “weak network problem.” While incubators can function as intermediaries to overcome such weak network problems, how they do so is poorly understood. This research thus poses the following research question: What is the effect of incubators’ support mechanisms on the occurrence of weak network problems in entrepreneurial ecosystems? We develop a theoretical model in which network development is a function of two processes: “meeting” and “mating.” We argue how different incubator support mechanisms influence these two processes; we then apply these insights in an agent-based model, which allows for estimating how much each support mechanism contributes to overcoming weak network problems in the FSN. Our simulation shows that developing a strong network among startups is key to overcoming weak network problems in FSNs. The most effective way to do so is to introduce incubated startups to non-incubated startups through field-building. Our results provide new theoretical insights into how networks in EEs and innovation systems develop, and what role incubators play as intermediaries in this process. The systemic benefits of incubators also greatly enhance their societal value proposition.

Vecchiato, Riccardo (2020):

Analogical reasoning, cognition, and the response to technological change. Lessons from mobile communication.

In: *Research Policy* 49 (5), S. 103958. DOI: 10.1016/j.respol.2020.103958.

*Abstract:*

We examine how analogical reasoning affects cognition and investment decisions in the face of technological change. Our research design is an in-depth, longitudinal case study of Nokia and its response to mobile Internet between the late 1990s and the mid-2010s. We show that Nokia diligently analyzed the competitive dynamics of other industries, such as the personal computer industry, that had already been affected by the same technological discontinuities and used the lessons from these industries to anticipate future competition outcomes in the mobile phone business. We also show that analogical reasoning helped Nokia’s managers change the beliefs developed through their prior experiences. However, Nokia’s managers became overconfident in their new beliefs, and this overconfidence constrained their cognitive processes of attention and interpretation, thereby increasing organizational inertia. This constraint was particularly evident in the new belief that the software operating system was the essential source of product differentiation. This belief directed key investment decisions for over a decade and contributed to the eventual decline of Nokia by leading the company to embrace Microsoft’s Windows Phone rather than Google’s Android.

Veldhuizen, Caroline (2020):

Smart Specialisation as a transition management framework. Driving sustainability-focused regional innovation policy?

In: *Research Policy* 49 (6), S. 103982. DOI: 10.1016/j.respol.2020.103982.

*Abstract:*

Intensifying debates regarding the capacity of innovation policy to contribute to addressing complex problems requires analysis of the relationship between different policy approaches and the concepts of sustainability and sustainable regional development. This paper makes an important contribution to this endeavour by considering the potential of the place based Smart Specialisation (S3) approach to be used as a vehicle for governing regional sustainability transitions. The potential for alignment between the Transitions Management (TM) framework and S3, predicated upon the central role of

collaborative discourse in each, provides the analytical lens to explore this issue. Key factors which both promote and inhibit the potential of S3 to effectively pursue a sustainability agenda are identified. An exploratory case study of the first stages of implementation of S3 in Gippsland, Australia, suggests that the policy approach can be adapted to address some of the challenges. However, it also suggests that adaptation of the S3 process may act to conceal unacknowledged, systemic issues, with profound implications for its capacity to promote societal transition within constrained time frames.

Wu, Chia-huei; Jong, Jeroen P. J. de; Raasch, Christina; Poldervaart, Sabine (2020):

### Work process-related lead users as an antecedent of innovative behavior and user innovation in organizations.

In: *Research Policy* 49 (6), S. 103986. DOI: 10.1016/j.respol.2020.103986.

#### *Abstract:*

Recent studies have identified that employees can be lead users of their employing firm's products, and valuable sources of product innovation, residing within organizational boundaries. We extend this line of thought by recognizing that employees can be lead users with regard to internal work processes. We define work process-related lead users (WPLU) as the extent to which employees experience unsatisfied process-related needs ahead of others, and expect high benefits from solutions to these needs. We hypothesize a positive association with user innovation in the workplace, evidenced by the development of tools, equipment, materials and methods. We test a moderated mediation model delineating how and when WPLU is related to user innovation within organizational boundaries. Drawing on survey data from 104 employees and 13 supervisors in a forensic services organization, we find that WPLU contributes to user innovation via engagement in innovative work behavior, especially when employees have higher self-efficacy (perceived capability to overcome obstacles) and lower job autonomy (situational constraints on the job).

Xie, Luqun; Zhou, Jieyu; Zong, Qingqing; Lu, Qian (2020):

### Gender diversity in R&D teams and innovation efficiency. Role of the innovation context.

In: *Research Policy* 49 (1), S. 103885. DOI: 10.1016/j.respol.2019.103885.

#### *Abstract:*

How gender diversity affects the innovation performance under different innovation contexts has been a complex and unsolved puzzle in the innovation literature. This study aims to examine the effect of gender diversity within research and development (R&D) teams on firms' innovation efficiency, which is defined as their capability to generate new product sales per unit of R&D investment. We argue that gender diversity in R&D teams can promote innovation efficiency by providing informational and social benefits throughout the innovation process. More importantly, we propose that this positive effect will be enhanced when task intensity or complexity is high as well as when market competition or market uncertainty is high. With a unique dataset of manufacturing firms in a coastal province of China from 2009 to 2013, we find strong empirical evidence for our theoretical framework. Ultimately, our study provides several managerial and policy implications to the issues related with female R&D employees.

Xing, Jack Linzhou; Sharif, Naubahar (2020):

### From creative destruction to creative appropriation. A comprehensive framework.

In: *Research Policy* 49 (7), 104060. DOI: 10.1016/j.respol.2020.104060.

#### *Abstract:*

This paper introduces a conceptual modification of Schumpeter's concept of creative destruction. Identifying a Kuhnian anomaly in a case of creative destruction in the 'new economy', we analyze a case study of the Chinese e-hailing firm DiDi Chuxing to show that this firm used a strategy we term 'creative appropriation', whereby a new firm utilizes incumbent firms' complementary assets but without cooperating with the incumbent, to disrupt a market. This exploitation of complementary assets is based on recombining prevailing technological infrastructure(s) as well as flexible business models that facilitate open innovation. Employing documentary analysis, participant-observation, face-to-face interviews with informants, and a quantitative survey, the study finds that DiDi deployed its e-hailing app to disrupt the taxi market in

Xi'an, China (as it did elsewhere in China) as a means of creative destruction, appropriating human-resource-based complementary assets (social and personal reputations, tacit knowledge, and connections) of taxi companies in Xi'an, first to dominate e-hailing in the taxi industry and then to destroy that industry by shifting its focus to private cars.

Zhao, Bo; Ziedonis, Rosemarie (2020):

State governments as financiers of technology startups. Evidence from Michigan's R&D loan program.

In: *Research Policy* 49 (4), S. 103926. DOI: 10.1016/j.respol.2020.103926.

*Abstract:*

State governments in the United States often fund and support technology startups within their borders. Yet little is known about the magnitude with which these place-based policy interventions shift the performance trajectories of entrepreneurial firms. We provide new evidence based on 241 startups that compete for advanced research and technology commercialization loans between 2002 and 2008 through a Michigan-based program. Among applicants with project scores near the threshold required for funding, we find that award recipients are 20%-30% more likely to remain in business four years after the competition relative to similar companies that seek but fail to receive funding. We also find that award receipt stimulates follow-on venture capital (VC) investments in surviving companies. The VC stimulus effect is, however, disproportionately driven by subsets of firms that are very young, relatively inexperienced at external fundraising, or located outside the dominant hub of entrepreneurial activity within the state. This distinctive pattern of heterogeneous effects remains visible for follow-on R&D financing from federal government sources, and for supplemental outcome measures that use news articles to track shifts in financing and business development activities. These findings are consistent with the view that public R&D programs are particularly beneficial when frictions in private resource markets are more severe.

Ziegler, Rafael (2020):

Paludiculture as a critical sustainability innovation mission.

In: *Research Policy* 49 (5), 103979. DOI: 10.1016/j.respol.2020.103979.

*Abstract:*

Paludiculture is the productive use of wet and rewetted peatlands. A major motivation is climate change, because drained peatlands contribute significant amounts of anthropogenic greenhouse gas emissions. The study presents an analysis of paludiculture as a critical sustainability innovation mission in the making. It is based on qualitative interviews conducted in 2018 in the north-east of Germany as well as on subsequent regional and European level stakeholder workshops focused on wet agriculture options for rewetted mires and other types of wetlands. A social grid approach of cognitive frames, institutions and social networks and their interplay is used to analyse paludiculture options for currently drained mires. The analysis suggests a pathway of paludiculture as land use at the margins of intensive, dryland agriculture. It also points to strategies for paludiculture to move from the margin to a transformation pathway, based on the use of framing, institutional conversion and productive niche work. The study proposes a 3Ms-schema of mission, modes and making innovation as a device to create space for a wide and inclusive discussion of paludiculture.

## Specials

Buenstorf, Guido; Koenig, Johannes (2020):

Interrelated funding streams in a multi-funder university system. Evidence from the German *Exzellenzinitiative*.

[Short communication]. In: *Research Policy* 49 (3), 103924. DOI: 10.1016/j.respol.2020.103924.



*Abstract:*

Using the *Zukunftskonzepte* funding line of the German *Exzellenzinitiative* as our empirical setting and employing a difference-in-differences approach, we study interrelations in the competitive funding of research projects. Our results indicate that enhanced inequality introduced through the *Exzellenzinitiative* was partially offset by changes in the allocation of resources from other funders.

Chen, Jin; Su, Yu-Shan; Jong, Jeroen P. J. de; Hippel, Eric von (2020):

### Household sector innovation in China. Impacts of income and motivation.

[Short communication]. In: *Research Policy* 49 (4), 103931. DOI: 10.1016/j.respol.2020.103931.

*Abstract:*

This research note reports upon the first survey of household sector innovation in China. Compared to previous survey studies we add two first-of-kind variables and related findings. First, we include data on individual income, a resource-related antecedent of household sector innovation. We find that higher individual incomes are strongly associated with increased frequency of both household sector innovation and innovation diffusion. When we combine personal income effects with the positive impact of educational levels and technical training (both competence-related antecedents), it appears that increases in national development are associated with increases in household sector innovation - a very useful public policy finding. Second, in this survey we included household sector innovations motivated by personal need and additional motivations related to learning, fun, helping others and selling/commercialization. This has a major impact on estimated household sector innovation frequencies - raising them by a factor of approximately 1.4. Reanalysis of data obtained in two earlier national surveys suggests that similar adjustment factors hold in those nations too. This finding shows that prior surveys have significantly underestimated household innovation. For many research purposes, such as national accounting, the total amount and value of household sector innovation is what is of interest, independent of motivations that may drive the activity.

Osterloh, Margit; Frey, Bruno S. (2020):

### If at first an idea is not absurd, then there is no hope for it. A response to the comments on our discussion paper on 'Borrowed plumes'.

[Discussion]. In: *Research Policy* 49 (1), 103870. DOI: 10.1016/j.respol.2019.103870.

Oswald, Andrew J. (2020):

### Rational randomization by journal editors-a mathematical derivation. A response to Osterloh and Frey's discussion paper on 'Borrowed Plumes'.

[Discussion]. In: *Research Policy* 49 (1), 103869. DOI: 10.1016/j.respol.2019.103869.

*Abstract:*

Should journal editors and grant-giving bodies ever make use of random-draw mechanisms to make their final decisions? This short Note argues that the answer is yes. It describes a mathematical rationale for such randomization. Put intuitively, random draw should be used when the gains from the acceptance of unorthodox path-breaking papers outweigh the costs of publishing the unorthodox poor papers. The mathematical case for this rests on an averaging argument and requires 'convexity' (of scientific influence) in a sense explained in the Note. The long-observed skewness of citations distributions is consistent with such convexity. Hence this Note attempts to offer a conceptual and practical addendum to the potentially important randomization proposal of Margit Osterloh and Bruno Frey (2020).

Urbatsch, R. (2020):

### Do expert surveys underrate lower-income countries?

[Short communication]. In: *Research Policy* 49 (8), 104058. DOI: 10.1016/j.respol.2020.104058.

#### Abstract:

Perceptions of countries' policy environments and innovation efforts drive important investment and regulatory decisions, but those perceptions may be biased. One particular concern is that evaluations of richer countries might be inflated compared to evaluations of poorer countries, as general stereotypes of national success spill over into assessments of research capability. Comparison of World Economic Forum survey assessments of businesses' research spending with official spending figures reveals that, among countries spending comparable amounts on research, richer countries receive higher survey ratings. Richer countries' educational outcomes are similarly rated higher than similarly performing poorer countries'. These findings suggest that perceptions may systematically disadvantage economically poorer countries, thereby misdirecting real-world investments and policy decisions derived from those rankings.

Wooding, Steven (2020):

### Heuristics, not plumage. A response to Osterloh and Frey's discussion paper on 'Borrowed plumes'.

[Discussion]. In: *Research Policy* 49 (1), 103871. DOI: 10.1016/j.respol.2019.103871.

Yaqub, Ohid (2020):

### JIFs, giraffes, and a diffusion of culpability. A response to Osterloh and Frey's discussion paper on 'Borrowed plumes'.

[Discussion]. In: *Research Policy* 49 (1), 103868. DOI: 10.1016/j.respol.2019.103868.

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## Editorials

Pasque, Penny A.; Nelson, Thomas F. (2020):

Editorial.

[Editorial]. In: *Review of Higher Education, The* 44 (1), v-iv. DOI: 10.1353/rhe.2020.0032.

## Original Articles

Aydin, Fatma; Vera, Elizabeth (2020):

Subjective Social Class and Subjective Well-Being among College Students. The Mitigating Roles of Self-Esteem and Critical Consciousness.

In: *Review of Higher Education, The* 43 (4), S. 1099–1123. DOI: 10.1353/rhe.2020.0014.

*Abstract:*

The authors explored the relationship between subjective social class (SSC) and subjective well-being (i.e., life satisfaction, positive/negative affect) to examine whether self-esteem would mediate this relationship for 275 college students and whether such mediation would be affected by participants' critical consciousness (CC). Two elements of SSC, social power and social prestige, had significant indirect effects on life satisfaction and negative affect through self-esteem. No statistically significant moderating role of CC was found on this mediation, but higher CC increased the size of the indirect effect of SSC on subjective well-being. Implications for research and practice with college students are discussed.

Bettencourt, Genia M. (2020):

"You Can't Be a Class Ally If You're An Upper-Class Person Because You Don't Understand". Working-Class Students' Definitions and Perceptions of Social Class Allyship.

In: *Review of Higher Education, The* 44 (2), S. 265–291. DOI: 10.1353/rhe.2020.0041.

*Abstract:*

Although the concept of allyship has been used in relation to multiple marginalized groups within higher education, it is rarely applied to social class. In this study, I used narrative inquiry to understand how working-class students define and perceive social class allyship. Findings revealed that working-class students identified social class allyship primarily through affinity spaces, resources, and navigational support. However, many struggled to conceptualize social class related to broader systemic change. From this research, I redefine allyship as a layered, multifaceted concept in which forms of oppression are interconnected and outline implications for individual and systemic change.

Bettencourt, Genia M.; Manly, Catherine A.; Kimball, Ezekiel; Wells, Ryan S. (2020):

## STEM Degree Completion and First-Generation College Students. A Cumulative Disadvantage Approach to the Outcomes Gap.

In: *Review of Higher Education, The* 43 (3), S. 753–779. DOI: 10.1353/rhe.2020.0006.

### Abstract:

STEM majors offer pathways to lucrative careers but are often inaccessible to first-generation students. Using data from the Education Longitudinal Study, we conducted descriptive statistics, regression analyses, and group comparisons to examine differences between first-generation students and continuing-generation students across STEM degree, non-STEM degree, dropout, and no degree completion. Findings illuminate that generation status is related to STEM completion, but other factors are driving this association; for example, pre-college STEM factors have significant predictive power. Our implications suggest a need to further examine pre-college and transfer pathways to STEM and to explore the limitations of first-generation status as a categorization.

Cain, Timothy Reese (2020):

## Collective Bargaining and Committee A. Five Decades of Unionism and Academic Freedom.

In: *Review of Higher Education, The* 44 (1), S. 57–85. DOI: 10.1353/rhe.2020.0035.

### Abstract:

In this article, I examine the relationship between unionism and academic freedom as revealed by 50 years of reports by the American Association of University Professors' Committee A on Academic Freedom and Tenure. Written following investigations of significant and/or intractable situations, the reports demonstrate the complex interactions between two key aspects of modern academe. Findings include that collective bargaining can complicate but has not endangered Committee A's work; organizing has been both a cause and effect of academic freedom violations; and, while bargained contracts can help establish faculty rights, shortcomings in provisions and administrators' contract focus can raise new challenges.

Castleman, Benjamin L.; Meyer, Katharine E. (2020):

## Can Text Message Nudges Improve Academic Outcomes in College? Evidence from a West Virginia Initiative.

In: *Review of Higher Education, The* 43 (4), S. 1125–1165. DOI: 10.1353/rhe.2020.0015.

### Abstract:

Although socioeconomic disparities in college enrollment have declined, gaps in college completion persist by income and geography. We investigate a text messaging campaign in West Virginia, which addressed informational barriers and behavioral obstacles to college persistence by providing college students with simplified information, encouragement, and access to individualized advising. Using descriptive and matching methods, we find participating students were more likely to remain enrolled throughout their first year of college, and completed more course credits with suggestive evidence of improved academic performance. This evidence suggests colleges play an important role communicating information about academic expectations, support resources, and norms.

Chambers, Crystal R.; Freeman, Sydney (2020):

## To Be Young, Gifted, and Black: The Relationship between Age and Race in earning Full Professorships.

In: *Review of Higher Education, The* 43 (3), S. 811–836. DOI: 10.1353/rhe.2020.0008.

### Abstract:

In this study, we sought to examine a growing phenomenon in academe of young full professorships, but through the lens of young Black full professors in higher education as a field of study. This study explores the experiences of seven young Black faculty who attained the rank of full professor before age 45 and whether their pathways to full were challenged

because of their age. Challenges to Black faculty advancement through faculty ranks generally are well documented; however, this work adds a dimension of youth and inactionable age discrimination to the literature. Implications for law, policy, and practice are discussed.

Clayton, Ashley B.; Umbach, Paul D. (2020):

**Making It Free and Easy. Exploring the Effects of North Carolina College Application Week on College Access.**

In: *Review of Higher Education, The* 44 (1), S. 87–119. DOI: 10.1353/rhe.2020.0036.

**Abstract:**

This study uses a series of panel models to explore the effect of North Carolina (NC) College Application Week (CAW) and free college applications during that week on the number of applications colleges receive and number of low-income students who matriculate. Our models suggest that NC saw an increase in applications and low-income student enrollments after the implementation of CAW, but these increases largely occurred at private colleges, seemingly shifting numbers from public universities. We find that the private colleges offering free applications during CAW experienced increases in the total number of both college applications received.

Cox, Bradley E.; Nachman, Brett Ranon; Thompson, Kerry; Dawson, Steven; Edelstein, Jeffrey A.; Breeden, Chase (2020):

**An Exploration of Actionable Insights Regarding College Students with Autism. A Review of the Literature.**

In: *Review of Higher Education, The* 43 (4), S. 935–966. DOI: 10.1353/rhe.2020.0026.

**Abstract:**

N.A.

[A large and growing population of students with autism is increasingly pursuing higher education. Yet, the field has a remarkably small literature base from which to glean actionable insights that might enhance postsecondary success for this population. Our examination of 13,000 items published in sixteen journals over a sixteen-year period revealed only 21 articles on the topic; none were published in mainstream higher education journals. Our explication of this literature maps the contours of the emerging body of literature on college students with autism, uncovers problematic patterns within that literature, identifies important questions that remain unanswered, and provides explicit guidance for future research on the topic.]

DeTurk, Sara; Briscoe, Felecia (2020):

**From Equity and Enlightenment to Entrepreneurialism. An HSI's Pursuit of "Tier-One" Status in the Neoliberal Era.**

In: *Review of Higher Education, The* 43 (4), S. 967–988. DOI: 10.1353/rhe.2020.0027.

**Abstract:**

Amid diminishing funding for higher education, public universities' practices increasingly reflect neoliberal mandates and discourses. This study examines the effects of this trend on a Hispanic-Serving Institution, whose original mission was one of access and inclusion, but which shifted to pursue "tier-one" status. Interviews with 41 long-term employees revealed tensions involving priorities, processes, and other issues. The quest for tier-one status often conflicted with intellectual freedom and equity and had different implications for employees depending on their social locations. We conclude by questioning the ability of universities to promote access, equity, and enlightenment in a context of shrinking educational budgets.

Duncheon, Julia C.; Relles, Stefani R. (2020):

**"We're Caught In Between Two Systems". Exploring the Complexity of Dual Credit Implementation.**

In: *Review of Higher Education, The* 43 (4), S. 989–1016. DOI: 10.1353/rhe.2020.0028.

**Abstract:**

Dual credit coursework has become a popular strategy to bolster the college completion agenda, yet research on program implementation is scarce. This qualitative interview study uses complexity theory to investigate how 103 teachers enacted dual credit at eight high schools partnered with a community college system in Texas. Findings demonstrate that teachers received instructions from the K-12 side of the partnership that contradicted those from the college, which undermined implementation and ultimately compromised course rigor. Ensuring the success of dual credit reform will likely require looking beyond the classroom to target system-wide change on both sides of the secondary-postsecondary divide.

Gándara, Denisa; Jones, Sosanya (2020):

**Who Deserves Benefits in Higher Education? A Policy Discourse Analysis of a Process Surrounding Reauthorization of the Higher Education Act.**

In: *Review of Higher Education, The* 44 (1), S. 121–157. DOI: 10.1353/rhe.2020.0037.

**Abstract:**

This study examines policy discourse surrounding a policy process to reauthorize the Higher Education Act, the most significant federal policy concerning higher education, a decade following the previous reauthorization. Guided by the theory of social construction and policy design, we draw on data from 14 hours of deliberation in a congressional hearing and employ policy discourse analysis. The findings shed light on which populations policymakers address in their discourse, how they portray various groups as deserving or undeserving of policy benefits, how they rationalize the allocation of burdens and benefits through policy, and how these portrayals differ between political parties.

Harris, Jessica C. (2020):

**Women of Color Undergraduate Students' Experiences with Campus Sexual Assault. An Intersectional Analysis.**

In: *Review of Higher Education, The* 44 (1), S. 1–30. DOI: 10.1353/rhe.2020.0033.

**Abstract:**

Many higher education scholars, policy makers, and practitioners continue to ignore the intersections of race and gender when focusing on campus sexual assault (CSA) for the undergraduate student population. This race-evasive approach contributes to incomplete and inaccurate understandings about the ways Women of Color students experience CSA. Subsequently, race-evasive approaches often inform ineffective efforts to address and eradicate CSA for all campus populations, particularly for students with multiple minoritized identities. Guided by the concept of intersectionality, this research explores how intersecting systems of domination, specifically racism and sexism, influence 34 Women of Color undergraduate student survivors' experiences with CSA. Study findings demonstrate how an intersectional approach to CSA elicits information that guides more effective efforts to eradicate sexual assault.

Jessup-Anger, Jody E.; Armstrong, Megan; Johnson, Brianne (2020):

**The Role of Social Justice Living-Learning Communities in Promoting Students Understanding of Social Justice and LLC Involvement.**

In: *Review of Higher Education, The* 43 (3), S. 837–860. DOI: 10.1353/rhe.2020.0009.

**Abstract:**

In this qualitative, multiple-case study, we explored 30 students' experiences across three social justice living-learning communities (LLC) to understand their conception of social justice and LLC involvement. Moreover, we examined the

community elements that advanced these outcomes. Despite similar goals across communities, students demonstrated variation in their understanding of and commitment to involvement in social justice initiatives. We advance a typology describing patterns of involvement and social justice understanding in which we categorize students into four quadrants, including informed activist, informed bystander, uninformed volunteer, and uninformed bystander. Further, we describe contextual elements that influenced these patterns, discussing implications for practice.

Linder, Chris; Grimes, Niah; Williams, Brittany M.; Lacy, Marvette C.; Parker, Breanna (2020):

### What Do We Know About Campus Sexual Violence? A Content Analysis of 10 Years of Research.

In: *Review of Higher Education, The* 43 (4), S. 1017–1040. DOI: 10.1353/rhe.2020.0029.

#### Abstract:

We examined 10 years of scholarship about campus sexual violence from 12 social sciences databases to illuminate the trends, gaps, and possibilities in research. Using a content analysis methodology, we examined 540 articles. In this paper, we highlight the methodologies, subjects, and demographics of participants in the studies. We use a power-conscious framework to interpret our findings, which indicate that campus sexual violence research primarily focuses on white, cisgender, heterosexual college women as victims of sexual violence. Further, most scholarship focuses on victims, rather than perpetrators of sexual violence, leaving significant gaps in effectively eradicating campus sexual violence.

Luedke, Courtney L. (2020):

### Lifting While We Climb. Undergraduate Students of Color Communal Uplift and Promotion of College-Going within Their Communities.

In: *Review of Higher Education, The* 43 (4), S. 1167–1192. DOI: 10.1353/rhe.2020.0016.

#### Abstract:

This critical qualitative study examines the ways first-generation Students of Color (Latina/o/x, African American, Native American, and biracial) at two predominantly White institutions in the Midwest activate their college knowledge, or cultural capital, to assist youth from their communities in viewing higher education as a viable option. In sharing cultural capital, participants are actively attempting to influence the habitus of youth of Color. By encouraging the pursuit of higher education, participants in this study were engaging in communal uplift. Findings reveal the need for colleges and universities to acknowledge, validate and support underrepresented students in their communal uplift efforts.

Luu Blanco, Gerardo; Metcalfe, Amy Scott (2020):

### Visualizing Quality. University Online Identities as Organizational Performativity in Higher Education.

In: *Review of Higher Education, The* 43 (3), S. 781–809. DOI: 10.1353/rhe.2020.0007.

#### Abstract:

Stratification and status competition are prevalent dynamics. This study explores the construction of legitimacy among some of the most prestigious higher education institutions in North America by analyzing the use of quality emblems (e.g., symbols associated with accreditation or rankings) on institutional websites among members of the Association of American Universities (AAU). We apply Lyotard's concept of performativity to guide a visual content analysis process. The visibility of emblematic quality varies primarily according to length of AAU membership. The study contributes to understanding legitimization in the competitive higher education field and the role that websites play in this process.

Lynch, R. Jason; Glass, Chris R. (2020):

**The Cost of Caring. An Arts-Based Phenomenological Analysis of Secondary Traumatic Stress in College Student Affairs.**

In: *Review of Higher Education, The 43 (4)*, S. 1041–1068. DOI: 10.1353/rhe.2020.0030.

*Abstract:*

Student affairs professionals are often called upon to act as first-responders to students experiencing trauma, leaving them exposed to secondary traumatic stress. In this study, I used phenomenological methods supported by an arts-based research exercise to explore the experiences and meaning making processes of student affairs professionals who have supported students through traumatic life events. The findings explore major themes, including the role of organizational influence on maladaptive views of student support, the impact of support work on personal wellness, self-efficacy in trauma support, and dimensions of social support. Implications for practice and further research are discussed.

McHenry-Sorber, Erin; Swisher, Katlin (2020):

**Negotiating Place and Gender. Appalachian Women's Postsecondary Transition Experiences.**

In: *Review of Higher Education, The 43 (4)*, S. 1193–1226. DOI: 10.1353/rhe.2020.0017.

*Abstract:*

Using a feminist geography framework, this qualitative study explores the first-year postsecondary experiences of Appalachian women through an interrogation of the ways in which they construct place and gender through their transition between two distinct geographic places: the home community and the university. A diversity of gender and place constructions, including: experiencing loss of home place identities; hiding Appalachian place identities; and resisting stereotypes about Appalachia-as-place. Further, some participants engaged in acts of affirmation or resistance to perceived dominant home community or University gender norms, while others actively resisted perceived dominant gender norms from both geographic places.

Sansone, Vanessa A.; Tucker Segura, Jennifer S. (2020):

**Exploring Factors Contributing to College Success among Student Veteran Transfers at a Four-Year University.**

In: *Review of Higher Education, The 43 (3)*, S. 888–916. DOI: 10.1353/rhe.2020.0011.

*Abstract:*

Using discrete-time hazard models, this exploratory study responds to the need for research on student veterans. Factors predicting persistence and graduation at a public university in Texas, serving a large student veteran population in the state, are examined; student veteran transfers' outcomes are compared to those of non-veteran transfer students to understand this population in the context of their characteristics as transfer students. Findings disrupt the prevailing narrative that veterans are not as successful as their peers, suggesting more research is needed to determine how to better support veterans in higher education.

Schudde, Lauren T.; Ryu, Wonsun; Brown, Raymond Stanley (2020):

**Major Movement. Examining Meta-Major Switching at Community Colleges.**

In: *Review of Higher Education, The 44 (2)*, S. 189–235. DOI: 10.1353/rhe.2020.0044.

*Abstract:*

Evidence of inefficient course-taking patterns at community colleges has spurred policy conversations about how to ensure effective course sequences. Structural reforms, like guided pathways, seek to reduce major switching as a means to streamline student course taking and eliminate unnecessary credits. By placing students into broad fields of study—called meta-majors—and encouraging persistence within that general field (where coursework narrows toward a specific program



over time), community colleges may help students progress toward their desired degree. But how often do students leave that meta-major, and what predicts meta-major switching? We use national data to examine meta-major switching at community colleges. Our findings suggest that almost 40 percent of students switch between meta-majors (eight broad major fields, plus undecided) between their first and third years of college. We describe the varied destinations and predictors across origin meta-majors and consider implications for colleges as they seek to assess ongoing reforms.

Simpfenderfer, Amanda Davis; Robles, Jeane; Drummond, Jessica; Garvey, Jason C.; Haslam, Rebecca E.; Dews, Soren D.; Weaver, Caroline A. (2020):

### Campus Climate Perceptions and Residential Living Among Queer and Trans Students. An Exploration Using Structural Equation Modeling.

In: *Review of Higher Education, The* 44 (1), S. 31–56. DOI: 10.1353/rhe.2020.0034.

#### *Abstract:*

The authors sought to examine how queer and trans students' residential living relates to perceptions of campus climate. Using Hurtado and colleagues' (2012) Multicontextual Model for Diverse Learning Environments, we utilized structural equation modeling to examine queer and trans students' perceptions of campus climate as mediated by institutional and organizational dimensions of diverse learning environments. Our findings reveal a positive indirect relationship between campus climate perceptions and living on campus, through the number of queer and trans students and faculty/staff students knew. These findings demonstrate the importance of compositional diversity and representation of queer and trans students and faculty/staff and students in creating positive learning environments for queer and trans students.

Smith, Rachel A.; Brown, Michael G. (2020):

### Far Beyond Postsecondary. Longitudinal Analyses of Topical and Citation Networks in the Field of Higher Education Studies.

In: *Review of Higher Education, The* 44 (2), S. 237–264. DOI: 10.1353/rhe.2020.0040.

#### *Abstract:*

As the low-consensus field of higher education grows, it negotiates constraints and possibilities in the topics engaged and the scholars included. To trace the shifting patterns of research topics in higher education studies during the past 20 years, we examined networks of the topical structures of ASHE conference papers and a subset of U.S. higher education journals. Topical and co-citation networks indicated that the field may be at a point of reconfiguration. We found shifts in terminology, frameworks, and methodologies related to increasingly disconnected topic clusters. Currently, the field seems capable of encompassing these distinctions through more independent discourse subcommunities.

Stebbleton, Michael J.; Lee, Crystal K.; Diamond, Kate K. (2020):

### Understanding the Food Insecurity Experiences of College Students. A Qualitative Inquiry.

In: *Review of Higher Education, The* 43 (3), S. 727–752. DOI: 10.1353/rhe.2020.0005.

#### *Abstract:*

This qualitative study explored the experiences of 23 food insecure undergraduate students. We interviewed participants about their experiences with hunger and food access, including how food insecurity affected their daily lives. Using holistic student development as a theoretical framework, our thematic analysis of individual student interviews produced three findings: (a) learning to work around hunger, (b) managing anxieties around food and wellness, and (c) acknowledging that food insecurity is a shared and critical issue. Our findings expand the literature on college student food insecurity, which is largely based on quantitative studies. We discuss implications for practice, policy, and future research.

Taylor, Leonard D. (2020):

**Neoliberal Consequence: Data-driven decision making and the subversion of student success efforts.**

In: *Review of Higher Education, The* 43 (4), S. 1069–1097. DOI: 10.1353/rhe.2020.0031.

*Abstract:*

In this study I explored the experiences of institutional actors (e.g. administrators, faculty and staff members) responsible for student success efforts at research universities. Through Critical Discourse Analysis of interview transcripts and institutional documents, I traced how neoliberalism and other economic logics propagated through the implementation of Data Driven Decision Making (DDDM) practices. Among the consequences of this propagation were: 1) the commodification of data, whereby institutional actors were expected to use *data-as-capital* to gain access to additional resources and support; and 2) the emergence of market-like environments, or *embedded-markets*, which amplified competition and eroded collaboration amongst those responsible for student success efforts. Insights from this study demonstrate how data-driven practices intended to enhance student success, served to inhibit student success efforts. This study has implications for research, practice, institutional decision-making, and institutional policies.

Taylor, Z. W.; Reddick, Richard J. (2020):

**The Eyes of History Are Upon You. Toward a Theory of Intellectual Reconstruction for Higher Education in a Post-Truth Era.**

In: *Review of Higher Education, The* 44 (2), S. 167–188. DOI: 10.1353/rhe.2020.0043.

*Abstract:*

"The Eyes of Texas," the official song of The University of Texas at Austin (UT), was written during the Jim Crow era, was first performed at a 1903 minstrel show, and was inspired by Robert E. Lee. This legacy and the enduring institutional racism at UT bring into question the purpose and propriety of the song in a post-truth era, where observable and documented facts may not be as influential in shaping public sentiment than subjective perceptions. This conceptual essay urges institutional leadership in higher education and academia writ large to practice intellectual reconstruction, or an education—not a celebration—of minoritizing institutional anachronisms in order to (re)purpose and (re)appropriate these anachronisms, many of which may be crucial to an institution's identity, history, people, and place.

Tucker, Kathryn; Sharp, Gwen; Qingmin, Shi; Scinta, Tony; Thanki, Sandip (2020):

**Fostering Historically Underserved Students' Success. An Embedded Peer Support Model that Merges Non-Cognitive Principles with Proven Academic Support Practices.**

In: *Review of Higher Education, The* 43 (3), S. 861–885. DOI: 10.1353/rhe.2020.0010.

*Abstract:*

This study investigated how an embedded peer support model that integrates non-cognitive principles, academic support, and peer mentoring affected students' success in completing gateway first-year courses as well as key measures such as retention at a Hispanic- and Minority-Serving Institution. The results show that the program had a statistically significant effect on the success metrics of first-generation, Pell-receiving, and racial/ethnic minority students. This program provides a potential model for reducing achievement gaps in higher education; however, the impacts on long-term retention and graduation require further investigation.

## Reviews

Aquino, Katherine C. (2020):

Sonja Ardoin & Becky Martinez. *Straddling Class in the Academy: 26 Stories of Students, Administrators, and Faculty from Poor and Working-Class Backgrounds and Their Compelling Lessons for Higher Education Policy and Practice*. Sterling, VA: Stylus, 2019. 215 pp. Paperwork: \$29.95. ISBN: 978-1-62036-740-7.

[Review]. In: *Review of Higher Education, The* 44 (1), S. 163–166. DOI: 10.1353/rhe.2020.0039.

Forsyth, Andrew (2020):

Anthony Kronman. *The Assault on American Excellence*. New York: Free Press, 2019. 288 pp. Paperback: \$17.00. ISBN 978-1-5011-9948-6.

[Review]. In: *Review of Higher Education, The* 43 (3), E-29-E-32. DOI: 10.1353/rhe.2020.0013.

[Review]. In: *Review of Higher Education, The* 43 (4), E-29-E-32. DOI: 10.1353/rhe.2020.0019.

*Abstract:*

[This review has been published twice in *RHE* volume 43 issue 3 and issue 4 with different DOI. The correct reference was not applicable as of June 2021, thus both are cited herein.]

Gao, Yan (2020):

Dannelle D. Stevens. *Write More, Publish More, Stress Less! Five Key Principles for a Creative and Sustainable Scholarly Practice*. Sterling, VA: Stylus, 2019. 295 pp. Hardcover: \$36.28. ISBN 1-62036-517-0.

[Review]. In: *Review of Higher Education, The* 43 (3), E-37-E-40. DOI: 10.1353/rhe.2020.0002.

[Review]. In: *Review of Higher Education, The* 43 (4), E-37-E-40. DOI: 10.1353/rhe.2020.0022.

*Abstract:*

[This review has been published twice in *RHE* volume 43 issue 3 and issue 4 with different DOI. The correct reference was not applicable as of June 2021, thus both are cited herein.]

Hale, Jessica (2020):

Kathryn E. Linder and Chrysanthemum Mattison Hayes (Editors). *High-Impact Practices in Online Education: Research and Best Practices*. Sterling, VA: Stylus Publishing, 2018. 248 pp. Softcover: \$30.86. ISBN 978-1620368473.

[Review]. In: *Review of Higher Education, The* 43 (3), E-32-E-35. DOI: 10.1353/rhe.2020.0000.

[Review]. In: *Review of Higher Education, The* 43 (4), E-32-E-35. DOI: 10.1353/rhe.2020.0020.

*Abstract:*

[This review has been published twice in *RHE* volume 43 issue 3 and issue 4 with different DOI. The correct reference was not applicable as of June 2021, thus both are cited herein.]

James, Shauntey (2020):

Joan Wallach Scott. *Knowledge, Power, and Academic Freedom*. New York: Columbia University Press, 2019. 184 pp. Hardcover: \$21.54. ISBN: 978-0232-19046-6.

[Review]. In: *Review of Higher Education, The* 43 (3), E-36-E-37. DOI: 10.1353/rhe.2020.0001.

[Review]. In: *Review of Higher Education, The* 43 (4), E-36-E-37. DOI: 10.1353/rhe.2020.0021.

*Abstract:*

[This review has been published twice in *RHE* volume 43 issue 3 and issue 4 with different DOI. The correct reference was not applicable as of June 2021, thus both are cited herein.]

Liu, Honggang (2020):

Holly Henderson, Jacqueline Stevenson, and Ann-Marie Bathmaker (Editors). *Possible Selves and Higher Education: New Interdisciplinary Insights*. London: Routledge, 2018. 158 pp. Paperback: \$35.95. ISBN 978-1-138-09803-9.

[Review]. In: *Review of Higher Education, The* 43 (3), E-27-E-29. DOI: 10.1353/rhe.2020.0012.

*Abstract:*

[This review has been published twice in *RHE* volume 43 issue 3 and issue 4 with different DOI. The correct reference was not applicable as of June 2021, thus both are cited herein.]

Liu, Honggang; Xia, Yang (2020):

Holly Henderson, Jacqueline Stevenson, and Ann-Marie Bathmaker (Editors). *Possible Selves and Higher Education: New Interdisciplinary Insights*. London: Routledge, 2018. 158 pp. Paperback: \$35.95. ISBN 978-1-138-09803-9.

[Review]. In: *Review of Higher Education, The* 43 (4), E-27-E-29. DOI: 10.1353/rhe.2020.0018.

*Abstract:*

[This review has been published twice in *RHE* volume 43 issue 3 and issue 4 with different DOI. The correct reference was not applicable as of June 2021, thus both are cited herein. Additionally, this publication mentions a second author, not listed for publication in the previous issue.]

Mills, Brian J.; Tevis, Tenisha (2020):

Anthony Abraham Jack. *The Privileged Poor: How Elite College Are Failing Disadvantaged Students*. Cambridge, MA: Harvard University Press, 2019. 288 pp. Hardcover: \$27.95. ISBN 9780674976894.

[Review]. In: *Review of Higher Education, The* 44 (1), S. 159-163. DOI: 10.1353/rhe.2020.0038.

Schmidt, Patrick (2020):

Carla Yanni. *Living on Campus: An Architectural History of the American Dormitory*. Minneapolis: University of Minnesota Press, 2019. 304 pp. Hardcover: \$140. ISBN 978-1-5179-0455-5. Paperback: \$34.95. ISBN 978-1-5179-0456-2.

[Review]. In: *Review of Higher Education, The* 43 (3), E-43-E-45. DOI: 10.1353/rhe.2020.0004.

[Review]. In: *Review of Higher Education, The* 43 (4), E-43-E-45. DOI: 10.1353/rhe.2020.0024.

*Abstract:*

[This review has been published twice in *RHE* volume 43 issue 3 and issue 4 with different DOI. The correct reference was not applicable as of June 2021, thus both are cited herein.]

Thouin, Caroline (2020):

Barrett J. Taylor and Brendan Cantwell. *Unequal Higher Education: Wealth, Status, and Student Opportunity*. New Jersey: Rutgers University Press, 2019. 202 pp. Paperback: \$34.98. ISBN 9780813593500.

[Review]. In: *Review of Higher Education, The* 43 (3), E-40-E-42. DOI: 10.1353/rhe.2020.0003.

[Review]. In: *Review of Higher Education, The* 43 (4), E-40-E-42. DOI: 10.1353/rhe.2020.0023.

*Abstract:*

[This review has been published twice in *RHE* volume 43 issue 3 and issue 4 with different DOI. The correct reference was not applicable as of June 2021, thus both are cited herein.]

Warner, Calvin H. (2020):

Jason Brennan. *Good Work If You Can Get It: How to Succeed in Academia*. Baltimore: Johns Hopkins University Press, 2020. 192 pp. ISBN: 9781421437965.

[Review]. In: *Review of Higher Education, The* 44 (2), S. 293–295. DOI: 10.1353/rhe.2020.0042.

## Specials

Renn, Kristen A. (2020):

Reimagining the Study of Higher Education. Generous Thinking, Chaos, and Order in a Low Consensus Field.

[Presidential Address]. In: *Review of Higher Education, The* 43 (4), S. 917–934. DOI: 10.1353/rhe.2020.0025.

*Abstract:*

[2019 ASHE Presidential Address]

## Editorials

## Original Articles

Abramo, Giovanni; D'Angelo, Ciriaco Andrea (2020):

Were the Italian policy reforms to contrast favoritism and foster effectiveness in faculty recruitment successful?

In: *Science and Public Policy* 47 (5), S. 604–615. DOI: 10.1093/scipol/scaa048.

*Abstract:*

In this work, we assess whether and to what extent the latest Italian national policy initiatives intended, among others, to contrast favoritism and foster recruitment effectiveness have resulted in the desired effects. To answer the question, we propose two related analyses. One compares the research performance ratings of recruits in two subsequent five-year periods, before and after the introduction of the above policy measures. The second analysis compares the effectiveness of recruitment by all Italian universities, in the above two subsequent five-year periods. The results from the comparisons show a decline of both unproductive and high-performing recruits, and no overall improvement in the effectiveness of recruitment.

Adelle, Camilla; Pereira, Laura; Gorgens, Tristan; Losch, Bruno (2020):

Making sense together. The role of scientists in the coproduction of knowledge for policy making.

In: *Science and Public Policy* 47 (1), S. 56–66. DOI: 10.1093/scipol/scz046.

*Abstract:*

New forms of knowledge production that actively engage in different types of knowledge in participatory settings have emerged in the last two decades as 'the right thing to do'. However, the role scientists play in facilitating these processes remains unclear. This article contributes to calls for more deliberate and critical engagement between scholarship and practice of the co-production of knowledge by constructing and testing a conceptual framework based on the literature outlining specific task for scientists in co-production processes. This framework is used to analyze the coproduction of knowledge for local food security policy in South Africa, based on documentary analysis and in-depth interviews with scientists, policy makers and stakeholders. It shows that the tasks set out in the conceptual framework provide a useful lens for unpacking, and so better understanding, the role played by scientists in knowledge co-production. Applying the framework also helps to uncover insights into proximate outcomes of co-production, such as increased capacity and power redistribution, as well as critical contextual factors, such as the type of policy problem and the prevailing governance framing. The article concludes that more nuanced and critical understanding of the role of scientists in the co-production process will help over-come the apparent paradox that, although co-production is a 'buzz word', researchers often they still adhere to objective and linear knowledge production.

Akerlof, Karen; Allegra, Alessandro; Webler, Thomas; Heath, Erin; Cloyd, Emily T.; Washbourne, Carla-Leanne; Tyler, Chris (2020):

### New Methods in Creating Transdisciplinary Science Policy Research Agendas. The Case of Legislative Science Advice.

In: *Science and Public Policy* 47 (4), S. 536–547. DOI: 10.1093/scipol/scaa033.

#### Abstract:

In transdisciplinary fields such as science policy, research agendas do not evolve organically from within disciplines but instead require stakeholders to engage in active co-creation. ‘Big questions’ exercises fulfill this need but simultaneously introduce new challenges in their subjectivity and potential bias. By applying Q methodology to an exercise in developing an international collaborative research agenda for legislative science advice (LSA), we demonstrate a technique to illustrate stakeholder perspectives. While the LSA international respondents-academics, practitioners, and policymakers-demonstrated no difference in their research priorities across advisory system roles, the analysis by developing and developed nation status revealed both common interests in institutional- and systems-level research and distinct preferences. Stakeholders in developing nations prioritized the design of advisory systems, especially in low- and middle-income countries, while those in developed countries emphasized policymaker evidence use. These differences illustrate unique regional research needs that should be met through an international agenda for LSA.

Alaja, Antti; Sorsa, Ville-Pekka (2020):

### The evolution of the national innovation system as programmatic policy idea in Finland.

In: *Science and Public Policy* 47 (6), S. 834–843. DOI: 10.1093/scipol/scaa045.

#### Abstract:

This article studies the idea of a national innovation system (NIS) as a policy program. Previous research has addressed NIS as a policy idea in the context of expert discourse or as normative frames in policy discourse. The idea has not yet been studied as a policy program that explicitly coordinates public policymaking. In this article, we study the programmatic idea of NIS and its status and impacts in the coordination discourses of Finnish policymaking in 1990–2019. We find that the idea of NIS was omnipresent in Finnish policy programs of the 1990s and 2000s, but lost its programmatic status in the 2010s. We show how Finnish policymakers explicitly deployed the idea to prescribe budget allocations and new legislation. The findings suggest that the idea was given a tangible but, compared with the breadth of the idea, relatively narrow role in coordinating public policy.

Archibugi, Daniele; Filippetti, Andrea; Frenz, Marion (2020):

### Investment in innovation for European recovery. A public policy priority.

In: *Science and Public Policy* 47 (1), S. 92–102. DOI: 10.1093/scipol/scz049.

#### Abstract:

The 2008 crisis had severe consequences in Europe at many levels. One of them is the significantly lower levels of public and private investments. This article explores to what extent a large plan of public innovation investment could contribute to the overall economic recovery and to opening a new stage of development in the European Union (EU). We argue that key scientific and technological opportunities, currently untapped, exist, which have the potential to accelerate economic growth and to pull in private investments. Decisive instruments, such as the Juncker investment plan and the proposed 2021–7 Framework Programme Horizon Europe, are important steps in that direction. The article concludes by reviving Lundvall’s call for a Council for Innovation and Competence Building that should have the same political weight as the EU Economic and Financial Affairs Council.

Binder, Claudia R.; Fritz, Livia; Hansmann, Ralph; Balthasar, Andreas; Roose, Zilla (2020):

### Increasing the relevance of science for practice and practice for science. Quantitative empirical insights.

In: *Science and Public Policy* 47 (6), S. 772–787. DOI: 10.1093/scipol/scaa066.

*Abstract:*

We present results of a survey conducted with researchers and practitioners involved in a Swiss National Research Programme on steering energy consumption. We analyse what motivates practitioners and researchers to engage in a collaborative research project, their perception of the collaboration intensity in different project phases, and the extent to which the research project provided useful results for practitioners. Our analyses demonstrate that the intensity of collaboration is a key driver of successful collaboration as it fosters trust between researchers and practitioners. Thereby, it increases the usefulness of the research project for practitioners and their perceived contribution to the success of the research project. Research programmes should thus (1) foster trust through incentivising collaboration between research and practice; (2) facilitate the development of a shared understanding of researchers' and practitioners' respective roles; and (3) support the inclusion of practitioners in the project development phase through financial support during the proposal-writing phase.

Boardman, Craig; Ponomariov, Branco; Shen, H. L. (2020):

### Science policy implementation. Strategic versus technical human resource management.

In: *Science and Public Policy* 47 (6), S. 844–854. DOI: 10.1093/scipol/scaa047.

*Abstract:*

Science commercialization in the context of USA research universities suggests that strategic human resources management (SHRM) theory practices should be considered cautiously. The primary reason being that the organizational and human resources strategies of many USA research universities has increasingly diverged; the secondary reason being that this will not be changing anytime soon. Using qualitative and quantitative information from a purposive sample of twenty-one university–industry research centers established by the US National Science Foundation, we present evidence that what the SHRM literature refers to as 'technical' human resource management (HRM) practice is perhaps more important to organizational performance than what the SHRM literature refers to as 'strategic' HRM practice. Relatedly, the cases suggest that university research center managers should consider leadership styles and network management approaches and established human resource (HR) practices, which may produce the results the plethora of strategic research commercialization initiatives at universities strive to achieve.

Britto, Jorge Nogueira de Paiva; Ribeiro, Leonardo Costa; Araújo, Lucas Teixeira; Da Albuquerque, Eduardo Motta e. (2020):

### Patent citations, knowledge flows, and catching-up. Evidences of different national experiences for the period 1982–2006.

In: *Science and Public Policy* 47 (6), S. 788–802. DOI: 10.1093/scipol/scaa041.

*Abstract:*

This paper uses information about patent citations to track the evolution of knowledge flows in selected countries engaged in catching-up processes. The analysis comprises patent citation data extracted from the USPTO database for the period 1982–2006. The data are presented through technological interaction matrices displaying the interaction between the technological fields of cited and citing patents. Each matrix cell matches the technological field(s) of one cited patent to the technological field(s) of its citing patent(s). The hypothesis is that the intensification and diversification of knowledge flows to a greater number of fields broadens the possibilities of identifying attractive opportunities for innovation, thereby multiplying the opportunities of development and catching-up. The analysis seeks to identify which technological fields concentrate the absorption and diffusion of knowledge in a given country over different periods, a consideration which tends to be related to the possibilities of catching-up processes.

Cao, Cong; Baas, Jeroen; Wagner, Caroline S.; Jonkers, Koen (2020):

### Returning scientists and the emergence of China's science system.

In: *Science and Public Policy* 47 (2), S. 172–183. DOI: 10.1093/scipol/scz056.



*Abstract:*

China's approach to developing a world-class science system includes a vigorous set of programmes to attract back Chinese researchers who have overseas training and work experience. No analysis is available to show the performance of these mobile researchers. This article attempts to close part of this gap. Using a novel bibliometric approach, we estimate the stocks of overseas Chinese and returnees from the perspective of their publication activities, albeit with some limitations. We show that the share of overseas Chinese scientists in the USA is considerably larger than that in the European Union. We also show that Chinese returnees publish higher impact work and continue to publish more and at the international level than domestic counterparts. Returnees not only tend to publish more, but they are instrumental in linking China into the global network. Indeed, returnees actively co-publish with researchers in their former host system, showing the importance of scientific social capital. Future research will examine the impact of length of stay, among other factors, on such impact and integration.

Cevallos, Rodrigo A.; Merino Moreno, Carlos (2020):

### National policy councils for science, technology, and innovation. A scheme for structural definition and implementation.

In: *Science and Public Policy* 47 (5), S. 705–718. DOI: 10.1093/scipol/scaa052.

*Abstract:*

National policy councils for science, technology, and innovation have become a common institutional arrangement in supporting governments to overcome the problems of coordination derived from the complexity of national innovation systems. These organizations are expected to involve stakeholders with strategic capacity in defining long-term goals for science, technology, and innovation, to coordinate efforts and to monitor execution. However, governments face several options to devise the proper council for their purposes, and the absence of a common framework may induce theoretical and analytical difficulties. This exploratory and descriptive study proposes a scheme for defining the structure of such a council and a comprehensive approach that is based on the novel Organisation for Economic Co-operation and Development (OECD) database; analyzing the results obtained for thirty-one countries. The results obtained from the index confirm heterogeneity, while the clustering suggests three types of councils. The proposed scheme provides a standard tool for the study and implementation of these councils.

Cheng, Hua; Zhang, Zhiying; Liao, Zhongju; Wei, Yong; Mvondo, Joseph Martial Nkongo (2020):

### Different policy instruments and the threshold effects on collaboration efficiency in China.

In: *Science and Public Policy* 47 (3), S. 348–359. DOI: 10.1093/scipol/scaa016.

*Abstract:*

University-industry R&D collaboration is an important means to improve innovation efficiency; many governments have issued policies to promote it. The most frequent policy instruments implemented by policy-makers to foster firms' innovation are subsidies and tax incentives. The article elaborated on how subsidies and tax incentives influence the R&D collaboration efficiency through a panel dataset from 2009 to 2015 in China. The result showed that subsidies and tax incentives have a positive effect on collaboration efficiency, and the effect of subsidies on output is bigger than that of tax incentives. Taking the intensity of subsidy as a threshold variable, there is a significant single threshold effect on collaboration efficiency. However, there is no threshold effect when the intensity of the tax incentive used as the threshold variable.

Cho, Seongkyung; Hayter, Christopher S. (2020):

### Under pressure. A systematic review of stress and its impact among graduate students.

In: *Science and Public Policy* 47 (6), S. 758–771. DOI: 10.1093/scipol/scaa053.

*Abstract:*

Despite increasing interest related to the role of graduate students in economic and social development, science policy scholars have overlooked the role of stress and its broader impact on the conduct of science. To motivate future empirical

research, this study systematically reviews the literature on antecedents and the impact of stress among graduate students, examining thirty-four journal articles published from 2000 to 2018. We find that not only do multiple definitions of stress exist, but also that scholars have neglected broader theoretical implications and comparative dimensions of the phenomenon. While this outcome can be explained partially by the paucity of different national and disciplinary perspectives, these factors nonetheless hinder the design and implementation of effective interventions that can help graduate students reduce and manage stress levels and thus improve the conduct of science. We introduce a conceptual model of our findings and discuss implications for future research and policy.

Christensen, Malene Vinther; Nieminen, Mika; Altenhofer, Marlene; Tancoigne, Elise; Mejlgaard, Niels; Griessler, Erich; Filacek, Adolf (2020):

### What's in a name? Perceptions and promotion of responsible research and innovation practices across Europe.

In: *Science and Public Policy* 47 (3), S. 360–370. DOI: 10.1093/scipol/scaa018.

#### Abstract:

After a decade of efforts to mainstream Responsible Research and Innovation (RRI) across Europe, the policy momentum is now uncertain. We explore how 217 organisations perceive responsibility in relation to their work, what mechanisms they apply to promote responsible practices, and what hindrances to promoting RRI they observe. Most organisations are unfamiliar with RRI but employ diverse perceptions of responsibility and mechanisms to promote it nonetheless. Civil society organisations are primarily outward oriented; collaborating with others and hosting science events. Private companies are more internally focussed and more likely to formalise this effort in strategies and internal guidelines. Universities resemble private companies, while private and public funders use funding-specific tools to incentivise responsible practices. Our results suggest that RRI is still poorly institutionalised and that some areas lack attention among actors in the research and innovation systems. Future policy endeavours might benefit from addressing deficits and tapping into existing perceptions of responsibility.

Cocos, Marta; Lepori, Benedetto (2020):

### What we know about research policy mix.

In: *Science and Public Policy* 47 (2), S. 235–245. DOI: 10.1093/scipol/scz061.

#### Abstract:

The research policy (RP) arena has been transforming in recent years, turning into a policy mix encompassing the diversity of policy instruments embedded in, and following different policy rationales and aims. Its complexity defies attempts for complex comparative analysis and eventually, a better understanding of what kind of (mixes of) funding instruments work better than others and in which situations. In this article, we address this gap by developing a conceptual framework that allows us to build the policy mix idea into the analysis of research funding instruments (RFIs), by relying on four dimensions: policy rationales, implementation modalities, policy actors, and the funding instruments interactions. We base our work on a careful literature review, especially drawing on the work of researchers who have developed similar frameworks in other policy areas, bringing it together with that of RP scholars, capturing the issues that are key to analyzing and understanding RFIs.

Da Silva Teixeira, Andre Luiz; Rapini, Marcia Siqueira; Caliri, Thiago (2020):

### Organizational determinants and idiosyncrasies of firms' absorptive capacity in a developing country.

In: *Science and Public Policy* 47 (3), S. 384–395. DOI: 10.1093/scipol/scaa020.

#### Abstract:

This article analyses the idiosyncrasies and organizational determinants of the absorptive capacity (AC) of firms located in a developing country. Theoretically, this article characterizes a 'vicious circle of limited AC' in Latin American firms. Empirically, the Brazilian Innovation Survey (2011 and 2014) is employed to analyze the role of organizational innovation and different innovative efforts to build two types of AC: (1) academic AC (to absorb knowledge from universities or

research institutes); (2) market AC (to absorb knowledge from suppliers, clients, or competitors). The main results indicate that firms develop both types of AC through training and acquisition of external Research and Development (R&D), instead of expenditure on internal R & D; academic AC is also built by external relationships and the firms' researchers' skills, while market AC is primarily affected by better internal knowledge diffusion. These results qualify the generic argument of limited AC for firms in a Latin American context.

Donadelli, Flavia (2020):

**When evidence does not matter. The barriers to learning from science in two cases of environmental policy change in Brazil.**

In: *Science and Public Policy* 47 (3), S. 313–321. DOI: 10.1093/scipol/scaa006.

*Abstract:*

It is generally accepted in public policy debate that expert knowledge tends to contribute to more effective formulation and implementation of policy. Most of the literature, however, has tended to be exclusively focused on the science-policy interface, ignoring the necessary pre-conditions of the broader national and institutional context for the effective use of scientific evidence. This shortcoming becomes particularly pronounced in analysis of developing in less pluralist countries. This article analyses two cases of Brazilian environmental policy-making and discusses the institutional pre-conditions for learning from science. By textually coding instances of direct and indirect participation of scientists in congressional debates and assessing the extent of their influence in final decisions, this article shows that despite being largely consensual to the scientific community, clearly communicated, and relevant, scientific information had no influence on the policy-decisions taken in two highly-technical areas of environmental policy in Brazil: forestry and pesticides. This article engages with the literature on the necessary institutional structures for learning from science and provides support for the hypothesis that countries with lower levels of political openness, and medium-to-low consensus requirements for decision-making, will tend to have considerable barriers to effectively producing evidence-based policy-making.

Duiveman, Robert (2020):

**Institutionally embedded research. How academic and governmental practices enable and constrain collaborative research.**

In: *Science and Public Policy* 47 (6), S. 855–864. DOI: 10.1093/scipol/scaa049.

*Abstract:*

To elucidate how authoritative knowledge is established for better dealing with unstructured urban problems, this article describes how collaborations between researchers and officials become an instrument for conceptualizing and addressing policy problems. A case study is used to describe a research consortium evaluating the controversial practice of 'Lifestyle' based housing allocation in the Dutch domain of social-housing. Analyzing this case in key episodes, we see researchers and policymakers selectively draw on established institutional practices—their so called 'home practices'—to jointly (re-)structure problems. In addition, we find that restructuring problems is not only intertwined with, but also deliberately aimed at (re-)structuring the relations within and between the governmental practices, the actors are embedded in. It is by selectively tinkering with knowledges, values, norms, and criteria that the actors can deliberately enable and constrain the ways a real-world problem is addressed.

Edquist, Charles; Zabala-Iturriagoitia, Jon Mikel (2020):

**Functional procurement for innovation, welfare, and the environment.**

In: *Science and Public Policy* 47 (5), S. 595–603. DOI: 10.1093/scipol/scaa046.

*Abstract:*

Public procurement accounts for a very large share of most economies worldwide. This conceptual article argues that the key to achieving more innovations when pursuing public procurement is to describe problems to be solved or functions to be fulfilled (functional procurement) instead of describing the products to be bought (product procurement). Contracting authorities need to identify the problems that policy should address. The new products (innovations) solving the problems

are to be designed by the potential innovators/suppliers, not by public procurers. Hence, the societal needs and problems must be translated and transformed into functional requirements. Functional procurement is allowed in European regulations, and therefore, there are no legal obstacles to use it for innovation policy purposes. Furthermore, it leads to increased competition not only among potential suppliers of similar products, but also among different products that solve the same problem.

Enger, Simen G.; Gulbrandsen, Magnus (2020):

### Orchestrating collaborative projects. Inside ICT networks in Horizon 2020.

In: *Science and Public Policy* 47 (3), S. 396–409. DOI: 10.1093/scipol/scaa021.

#### *Abstract:*

This article investigates decisions taken at the project level in establishing and managing collaborative ICT projects under the European Framework Programme Horizon 2020. Based on interviews with project coordinators from European research organizations, we offer a detailed examination of how projects are built and managed, and how decisions influence the formation of collaborative networks. Projects are typically set up in three stages. In the first, a smaller group that has worked together before decides on the main idea. This leads in the second stage to a gradual invitation of partners to satisfy professional and formal demands, which also defines the structure of the project. If funded, more detailed decisions on ownership and interaction are taken in the third stage. Coordinators are under pressure from the regulatory control of the EU Commission, which can explain the strong preference for well-known partners, but the formal monitoring also provides tools for project managers.

Fabiano, Gianluca; Marcellusi, Andrea; Favato, Giampiero (2020):

### Channels and processes of knowledge transfer. How does knowledge move between university and industry?

In: *Science and Public Policy* 47 (2), S. 256–270. DOI: 10.1093/scipol/scaa002.

#### *Abstract:*

The role of knowledge and technology transfer between academia and the industry has received increasing attention in the analysis of innovation. This article aims to explore the scientific literature concerning knowledge transport mechanisms and describe how the topic was organized by previous studies and terminologies applied. A systematic review was conducted in which the content of recent contributions best fitting these intentions was analysed. The characteristics of knowledge, individuals, organizations, and disciplines were found to be the main determinants in the adoption of transfer mechanisms. These were classified in terms of formalization, relational involvement, direction, and time. On the revealed multi-dimensionality of knowledge transfer and complementarity between transfer activities we framed a new taxonomy distinguishing between channels and processes. Future research may deepen these factors, such as the economic aspects driving the adoption of transfer mechanisms informing decisions on the funding of innovation.

Falk, Martin Thomas; Svensson, Roger (2020):

### Evaluation criteria versus firm characteristics as determinants of public R&D funding.

In: *Science and Public Policy* 47 (4), S. 525–535. DOI: 10.1093/scipol/scaa032.

#### *Abstract:*

This study provides new empirical evidence regarding the relevance of evaluation criteria and firm characteristics for public R&D funding decisions. The database used contains both accepted and rejected R&D project proposals, project evaluation scores, and several firm characteristics. The probit estimations show that proposals with high scores on innovative content, spillover, and knowledge gain are significantly more likely to be approved and that most firm-level characteristics are not significant, except for firm size. For example, good or very good assessments of innovative content raise the acceptance probability by between 18 and 37 percentage points, respectively. Small firms are more likely to receive a grant.

Feldbacher-Escamilla, Christian J. (2020):

**Knowledge and values. A re-entanglement in epistemic regimes.**

In: *Science and Public Policy* 47 (1), S. 67–77. DOI: 10.1093/scipol/scz047.

*Abstract:*

Knowledge and values are the two main ingredients of public decision-making. In the past, the predominant paradigm of such decision-making was based on an approach of value-neutral science and aimed at processing both ingredients in a disentangled way. However, this approach has some theoretical and practical drawbacks, for which reason several alternative paradigms of public decision-making arose. In this paper we highlight the importance of another paradigm of such decision-making within so-called epistemic regimes. We do so against the background of the discussion of value-neutral science and provide a conceptual analysis of the notion of a regime which allows us to outline the underlying structure of re-entangling knowledge and values in epistemic regimes.

Ghosh, Shubha (2020):

**Myriad post- *Myriad*.**

In: *Science and Public Policy* 47 (5), S. 638–646. DOI: 10.1093/scipol/scaa008.

*Abstract:*

The US Supreme Court's 2013 decision, holding patent claims to isolated, endogenous deoxyribonucleic acid (DNA) sequences to be invalid, seemed to have limited negative impact on Myriad Genetics whose patent on the isolated *BRCA1* and *BRCA2* genes were at the heart of the case. This article explains this minimal impact in two ways. First, the Court's decision still left synthetic DNA patentable, leaving that as a fruitful source for commercialization by companies like Myriad. The Federal Circuit's subsequent decision, however, invalidated Myriad's product claims over the synthetic polymerase chain reaction primers based on the isolated DNA sequences. Second, the Court's decision did not address the patentability of mined genetic data for diagnostic and therapeutic purposes. This field of genetic data mining is precisely where Myriad has moved in its patenting activity.

Gomez-Valenzuela, Victor (2020):

**STI policies in the Dominican Republic. The influence of economic rationales from a context-development perspective.**

In: *Science and Public Policy* 47 (3), S. 371–383. DOI: 10.1093/scipol/scaa019.

*Abstract:*

This article examines the influence of different economic rationales in the Dominican Republic's science, technology, and innovation (STI) policies from a context-development perspective. For this purpose, four STI policy frameworks are reviewed: the National Competitiveness Plan; the Strategic Plan of Science, Technology, and Innovation; the Ten-year Plan of Higher Education; and the National Development Strategy 2030. Three cycles of STI policies are covered: the industrialization and import substitution cycle; the structural adjustment cycle; and the post-structural adjustment cycle. Five economic rationales are considered: neoclassical, Schumpeterian growth, neo-Marshallian, systemic-institutional, and evolutionary thought. Based on the results, three rationales prevail a systemic-institutional approach; a neo-Marshallian perspective; and a Schumpeterian growth approach. These rationales may refer to the country's challenges to spur its potential for economic growth and development.

Grimpe, Barbara; Stahl, Bernd Carsten; Holter, Carolyn ten; Inglesant, Philip; Eden, Grace; Patel, Menisha; Jirotko, Marina (2020):

**From collaborative to institutional reflexivity. Calibrating responsibility in the funding process.**

In: *Science and Public Policy* 47 (5), S. 720–732. DOI: 10.1093/scipol/scaa038.

*Abstract:*

Science-policy organisations are expected to be reflexive of their political influence on research and society. In this long-standing discourse on institutional reflexivity, formal organisations have largely been considered as a whole, and from a structural, or systemic perspective, whereas much less is known about everyday organisational practices; how individual organisational members reflect on and act upon their own as well as their organisation's limits of knowledge and pre-commitments, if at all. We address this gap through an analysis of qualitative interviews with one national funding institution's staff overseeing funding for research into information and communication technologies. We develop a bridging concept between individual and institutional reflexivity, which we call 'collaborative reflexivity'. Through collaborative reflexive processes, individual employees contribute to the entire organisation's institutional reflexivity. Our findings help to better understand 'responsible' behaviour in funding processes, as part of the growing international movement of Responsible Research and Innovation.

Hansen, Hanne Foss; Lind, Jonas Krog; Stage, Andreas Kjaer (2020):

### Changing managerial roles in Danish universities.

In: *Science and Public Policy* 47 (4), S. 447–457. DOI: 10.1093/scipol/scaa025.

*Abstract:*

The article analyses changes in university managerial roles in the wake of a range of reforms, most notably a radical Danish management reform in 2003, using institutional work as the theoretical framework. Both qualitative and quantitative data is drawn upon, the former consisting of interviews with academics and managers on all levels and the latter in the form of payroll data for all Danish university employees. By combining these data in a mixed methods study, the analysis reveals how managerial roles have changed slowly, steadily, and substantially in the years since the reforms, resulting in extensive change. The article hereby questions the resilience of universities as organisational incarnations of a traditional collegial template.

Hansen, Thomas Trost; Ren, Carina (2020):

### Chairs of academic events. The investments and academic impact.

In: *Science and Public Policy* 47 (3), S. 322–332. DOI: 10.1093/scipol/scaa007.

*Abstract:*

Every year, tens of thousands of academics engage in unfamiliar tasks related to catering, hotel booking, and transportation. They do so as chairs of the academic event. We do not know much about these chairmanships; neither how the researchers engage nor whether it is worthwhile from an academic point of view. Based on interviews with twenty-three researchers at six Danish universities and an analytical framework informed by the concept of credibility cycles, we analyze the academic chairmanship and how it impacts the knowledge production process of the chair. The article argues that the chairmanship is a multifaceted investment, which includes a range of non-academic tasks. The investment is a source for the following forms of credibility network, buzz, and recognition and the chairs gain access to a range of other potential exchanges. The study concludes that chairmanships of academic events are surprisingly similar across disciplines and that they are potential science policy instruments.

Hawkins, Naomi (2020):

### Patents and non-invasive prenatal testing. Is there cause for concern?

In: *Science and Public Policy* 47 (5), S. 655–667. DOI: 10.1093/scipol/scaa012.

*Abstract:*

Intellectual property rights are key to the translation of discoveries into clinical use in personalised medicine. This article explores the interaction of intellectual property rights, specifically patents, with the field of genomic personalised medicine, through empirical work investigating the role that patents play in the development and delivery of non-invasive prenatal testing (NIPT). Single gene testing (SGT) and NIPT represent examples of two different types of innovation likely to be important in personalised medicine, and which operate differently in terms of how the law is applied in practice. In SGT,

on the one hand, previous studies demonstrate that patents have little impact on practice for those developing genetic tests in the public sector in the UK because they are largely ignored. In contrast, however, this qualitative interview study finds that law and law-in-practice in NIPT are much more convergent than found in SGT. Those involved in the development and delivery of NIPT are more aware of patents, and balance the costs and benefits of greater engagement or compliance with patent law, in relation to factors such as freedom to operate, litigation, and licensing, in favour of compliance. Compliance can take different forms; licensing is compliance, as is forbearance from using a patented invention in the absence of a patent licence. This article explores the factors relevant to patent law compliance in NIPT, and further considers the implications for the field of personalised medicine. It argues that, as the prevalent means to promote openness, access, and affordability in biomedicine are founded on the existing legal structures of intellectual property rights, such solutions will only be effective and adopted when these existing legal structures of intellectual property law are recognised and respected in the relevant field. It is therefore essential that such solutions only be deployed with a nuanced understanding of the operation of the law-in-practice.

Hayter, Christopher S.; Link, Albert N. (2020):

### Governance mechanisms enabling interorganizational adaptation. Lessons from grand challenge R&D programs.

In: *Science and Public Policy* 47 (2), S. 271–282. DOI: 10.1093/scipol/scaa003.

#### Abstract:

From climate change to terrorism, the world is confronting complex, trans-national problems. As a contemporary response, governments and non-profit organizations have established grand challenge programs, consisting of multi-sector research and development partnerships, to access innovative new ideas and rapidly scale solutions. Following recent scholarly contributions, this article investigates how problems motivating program establishment were identified, how these problems and related contextual factors evolve over time, and how grand challenge programs evolve in response. It does so through a multi-year study of ten grand challenge programs that differ substantially in purpose and organization. This article finds that adaptive capabilities-inter-organizational governance mechanisms-and operational aspects such as purpose, scope, temporal factors, and partner capabilities are critical to program evolution and impact.

Ito, Shin; Watanabe, Toshiya (2020):

### Multilevel analysis of research management professionals and external funding at universities. Empirical evidence from Japan.

In: *Science and Public Policy* 47 (6), S. 747–757. DOI: 10.1093/scipol/scaa074.

#### Abstract:

This study examines the relationships between a collaborative climate for research management professionals and external funding at universities. University research management is becoming increasingly important in efforts to develop innovation. By combining data from an original questionnaire survey and a public dataset, this study employed multilevel structural equation modelling. The sample comprised 292 research management professionals at 76 Japanese universities and research institutions. The results indicate that the whole hypothetical model of the two-level structure fitted the data well. At the organisational level, the knowledge-sharing environment had a significant positive relation with external research funding. Supportive supervision was also positively and significantly related to the knowledge-sharing environment at the individual and organisational levels. The findings show that a more collaborative climate for research management professionals can lead to more external funding of the entire university; they provide a new contribution to the theory and practice of university research management.

Kaufmann, David; Kuenzler, Johanna; Sager, Fritz (2020):

### How (not) to design and implement a large-scale, interdisciplinary research infrastructure.

In: *Science and Public Policy* 47 (6), S. 818–828. DOI: 10.1093/scipol/scaa042.

*Abstract:*

Research is increasingly carried out in large-scale, interdisciplinary research programs that aim to tackle complex, multidimensional, and future-oriented challenges. We explore the case of the Swiss Initiative in Systems Biology (SystemsX.ch), the largest ever Swiss research program, and more specifically the partial failure of the program's IT-project SyBIT. Apart from providing IT and data science support, SyBIT aimed to establish a common data repository. The establishment of this common data repository failed. Based on an interdisciplinary analytical framework, we propose that five explanatory factors account for this failure: a lack of demand from researchers, technological complexity of heterogeneous data formats, absence of governance decisions in favor of the data repository, interpersonal problems, and political difficulties. We conclude that for large-scale research infrastructure, the policy design is crucial for success, given that it can result in positive or negative after effects, such as user resistance versus acceptance and technological complexity versus coherence.

Kim, Kyunam; Choe, Chung; Lee, Daeho (2020):

### Overlapping certification and technical efficiency of ICT convergence companies in South Korea.

In: *Science and Public Policy* 47 (4), S. 514–524. DOI: 10.1093/scipol/scaa031.

*Abstract:*

Since the late 1990s, in South Korea, two innovation certification policies-InnoBiz and Venture certifications-have fostered the innovation activities of venture companies and small- to medium-sized enterprises. The two certifications, however, share similar features in their policy goals, targets, and main content. This study aims to evaluate how technical efficiencies of firms differ based on the types of innovation certifications it achieves and examine the result when a firm simultaneously achieves overlapping certifications. We classified information and communication technology convergence firms into four different groups by certification type and evaluated their performance based on technical efficiency (TE) by applying stochastic frontier analysis and meta-frontier analysis. Our results show that the meta-frontier TE of the group with overlapping certifications is lower than that of the group with a single certification, implying that there is no remarkable performance improvement in terms of the efficiency, particularly when certifications sharing similar characteristics are implemented.

Kishi, Naoko (2020):

### How does policy focus influence scientific research?

In: *Science and Public Policy* 47 (1), S. 114–124. DOI: 10.1093/scipol/scz051.

*Abstract:*

Policy focus gives scientists an incentive to pursue specific research subjects and influences a trend of scientific research. This study examines how public grant is allocated for stem cell research in Japan and shows that scientists are likely to advance their research toward the direction led by policy. Since Japanese scientists discovered a method to generate induced pluripotent stem cell (iPSC) in 2006, public financial and institutional support has skewed toward iPSC. The 2012 Nobel Prize in Physiology or Medicine for iPSC has also had an impact on policy and scientists' selection of stem cells. Scientists in the top universities are likely to select iPSC research. In addition, iPSC research obtains more amount of public grant funding than other stem cell research. However, scientists' age has no relevant impact on selecting iPSC research. Finally, this study concludes that targeted public funding skews knowledge portfolio by scientists in a nascent field.

Kruss, Glenda (2020):

### Balancing multiple mandates. A case study of public research institutes in South Africa.

In: *Science and Public Policy* 47 (2), S. 149–160. DOI: 10.1093/scipol/scz054.

*Abstract:*

The role of public research institutes (PRIs) in innovation and development is typically researched as a linked couplet with universities, but there is little empirical research on PRIs specifically. The article investigates how PRIs in late-developing countries balance multiple mandates, shaped by disciplinary fields and historical trajectories, drawing on comparative case



studies of five PRIs in South Africa. PRIs succeeded in articulating new and ambitious strategic policies but most struggled to give effect to expanded mandates. The article compares their 'interactive capabilities' by examining the internal and external interface structures and incentive mechanisms created to support and promote interaction with other knowledge producers and users and highlights misalignments at the macro level. National policy will need to promote the development of stronger interactive capabilities if PRIs are to balance their mandate to link to global knowledge flows, grow economic competitiveness, and address complex problems arising from high levels of poverty and inequality.

Kundu, Oishee; James, Andrew D.; Rigby, John (2020):

### Public procurement and innovation. A systematic literature review.

In: *Science and Public Policy* 47 (4), S. 490–502. DOI: 10.1093/scipol/scaa029.

#### Abstract:

Public procurement and innovation is the subject of a growing body of literature. This article systematically reviews the existing research, documenting its evolution and highlighting dominant and overlooked themes. We find a dramatic increase in the number of journal publications on this topic since 2008, the existence of thematic communities within the literature, and a focus on empirical work. We analysed keywords and abstracts to identify the broad boundaries of research on public procurement and innovation as well as particular areas of focus in the literature. We found a variety of terms used to describe the application of public procurement as an innovation policy tool and a variety of thematic interests and theoretical foundations. We argue that this makes it challenging to consolidate the research on the topic. From a policy perspective, the geographical context of research is overwhelmingly concentrated in OECD and EU countries.

Lauronen, Juha-Pekka (2020):

### The dilemmas and uncertainties in assessing the societal impact of research.

In: *Science and Public Policy* 47 (2), S. 207–218. DOI: 10.1093/scipol/scz059.

#### Abstract:

In the 2000s, many European Union countries have established research impact assessment practices as part of the scrutiny of the third mission of universities. The Finnish research evaluation system has widely adopted a societal impact criterion. In this study, the question is what guiding principles does impact assessment rely on. This point of view is based on the experiences and opinions of experts interviewed for the study. Four implicit principles of impact assessment which guide assessment goals and practical implementations were found. The guiding principles have several social and methodological dilemmas due to liminal interpretations between social interests and academic endeavor. This study recommends that the evaluation scholars should consider the actual social purpose vis-a-vis consistent methodological approaches to assessment before applying 'all-round' solutions to scholarly fields.

Lilja, Erika (2020):

### Threat of policy alienation. Exploring the implementation of Open Science policy in research practice.

In: *Science and Public Policy* 47 (6), S. 803–817. DOI: 10.1093/scipol/scaa044.

#### Abstract:

Many European countries have introduced Open Science (OS) policies to improve the quality and efficiency of science and to increase economic and societal growth. Researchers' perceptions and experiences of OS policies remain relatively under-investigated. This explorative study applies the policy alienation perspective to understand researchers' perceptions of OS policy implementation. Analysis of survey responses indicates that researchers have difficulties in coping with OS policy and that they feel policy alienation from OS policy. Hence, researchers may be less willing to try to support OS policy implementation despite the fact that OS policies are motivated by the desire to enhance the excellence and quality of research. The findings address how the incentive problems lie not only in the research evaluation and academic credit systems but also in the policy–practice divide. These problems need to be solved in terms of participation in policymaking and in the knowledge production of 'openness' itself.

Lind, Jonas K. (2020):

### Resource environment and hierarchy in universities.

In: *Science and Public Policy* 47 (2), S. 184–193. DOI: 10.1093/scipol/scz057.

#### Abstract:

This article investigates the influence of changes in the research funding environment on hierarchy in Danish universities. The article concludes that the claims made by some scholars in the field—that external funding of research and the introduction of ‘strong’ research evaluation systems have penetrated or weakened hierarchy in universities—need to be moderated. In some ways, the developments in the resource environment, in tandem with the implementation of a management reform in Danish universities, have worked to underpin hierarchy in universities.

Link, Albert N.; Scott, John T. (2020):

### Invention disclosures and the slowdown of scientific knowledge.

In: *Science and Public Policy* 47 (6), S. 829–833. DOI: 10.1093/scipol/scaa043.

#### Abstract:

Invention disclosures are one measure of new scientific knowledge that represents and predicts the future scientific research output of a US federal laboratory. In this article, we document a negative shift in the production function for new scientific knowledge as measured by invention disclosures at one federal laboratory, the National Institute of Standards and Technology, over the first 16 years of the new millennium. We find a negative shift of the production function for new scientific knowledge, and that shift might reflect the coincidence of the information and communication technology revolution that enabled fast science, and the evaluation of research with uncritical use of citation counts that created incentives to focus on incremental research in crowded research topics.

Liu, Huiling; Xing, Fei; Li, Bo; Yakshtas, Kseniya (2020):

### Does the high-tech enterprise certification policy promote innovation in China?

In: *Science and Public Policy* 47 (5), S. 678–688. DOI: 10.1093/scipol/scaa050.

#### Abstract:

This study investigates the impacts of the high-tech enterprise certification policy on corporate innovation in China, by analyzing a unique dataset of listed companies and their affiliates from 2006 to 2015. We exclude firms certified after year 2009 from the sample, because they may have engaged in R&D manipulation. The findings show that the high-tech enterprise certification can promote corporate innovation in China, especially the innovation captured by invention patents and the intensity of policy matters. The study also concludes that the high-tech enterprise certification can influence enterprise innovation through ‘physical’ and ‘tacit’ channels. Heterogeneity analysis indicates that private enterprises, enterprises in more competitive industries, and equity-inspired enterprises benefit most from high-tech enterprise certification. This article helps understand the validity of innovation policies and driving forces of innovation.

Marjanovic, Sonja; Altenhofer, Marlene; Hocking, Lucy; Chataway, Joanna; Ling, Tom (2020):

### Innovating for improved healthcare. Sociotechnical and innovation systems perspectives and lessons from the NHS.

In: *Science and Public Policy* 47 (2), S. 283–297. DOI: 10.1093/scipol/scaa005.

#### Abstract:

Healthcare systems with limited resources face rising demand pressures. Healthcare decision-makers increasingly recognise the potential of innovation to help respond to this challenge and to support high-quality care. However, comprehensive and actionable evidence on how to realise this potential is lacking. We adopt sociotechnical systems and innovation systems theoretical perspectives to examine conditions that can support and sustain innovating healthcare systems. We use primary data focussing on England (with 670 contributions over time) and triangulate findings against globally-relevant

literature. We discuss the complexity of factors influencing an innovating healthcare system's ability to support the development and uptake of innovations and share practical learning about changes in policy, culture, and behaviour that could support system improvement. Three themes are examined in detail: skills, capabilities, and leadership; motivations and accountabilities; and collaboration and coordination. We also contribute to advancing applications of sociotechnical systems thinking to major societal transformation challenges.

Matus, Kira J. M.; Bernal, Marie N. (2020):

### Media attention and policy response. 21st century chemical regulation in the USA.

In: *Science and Public Policy* 47 (4), S. 548–560. DOI: 10.1093/scipol/scaa034.

#### Abstract:

This article explores the relationship between media coverage of chemical hazards, scientific understandings of chemical risk, and policy change in the USA at the state level from 1990 to 2010. We observe that media coverage compounded by scientific development, especially in relation to a greater understanding of chemical hazards and approaches to its management, affected public perception of health and environmental risk, aiding in a shift of expectations about necessary levels of statutory protection from the states. We also note the emergence of effective framings of chemical risk around impacts on vulnerable populations, such as children, where media attention and policy action created important coalitions of support. The resulting increased state-, county-, and city-level policy action eventually led to support and momentum policy change at the federal level. This study helps to clarify how media attention to chemical hazards may play an important role in influencing eventual policy responses and risk management approaches.

Minssen, Timo; Rajam, Neethu; Bogers, Marcel (2020):

### Clinical trial data transparency and GDPR compliance. Implications for data sharing and open innovation.

In: *Science and Public Policy* 47 (5), S. 616–626. DOI: 10.1093/scipol/scaa014.

#### Abstract:

Recent European Union (EU) initiatives and legislation have considerably increased public access to clinical trials data (CTD). These developments are generally much welcomed for the enhancement of science, trust, and open innovation. However, they also raise many questions and concerns, not least at the interface between CTD transparency and other areas of evolving EU law on the protection of trade secrets, IPRs, and privacy. This article focuses on privacy issues and on the interrelation between developments in transparency and the EU's new General Data Protection Regulation 2016/679 (GDPR). More specifically, this article examines: (1) the origins and rationales of EU transparency regulations, including the incidents and concerns that have shaped them; (2) the features and implications of the GDPR which are relevant in the context of clinical trials; and (3) the risk for tensions between the GDPR and the policy goals of CTD transparency, as well as implications for data sharing and open innovation. Ultimately, we elaborate on factors that should be carefully considered and addressed to reap the full benefits of CTD transparency.

Mirnezami, Seyed Reza; Beaudry, Catherine; Tahmooresnejad, Leila (2020):

### The effect of collaboration with top-funded scholars on scientific production.

In: *Science and Public Policy* 47 (2), S. 219–234. DOI: 10.1093/scipol/scz060.

#### Abstract:

The theoretical model developed in this article predicts that collaboration with top-funded scientists positively affects the number of scientific publications of an individual scientist. Having combined data on funding and publication of Quebec scientists, this article empirically tests the theoretical predictions. This article examines numerous definitions of top-funded scientists as those in the top 10 per cent, or top 5 per cent in terms of total funding, funding from the public sector, and funding from the private sector. The results show that collaborating with such top-funded scientists has a positive effect on a scientist's number of publications, hence confirming our theoretical predictions.

Moncada-Paterno-Castello, Pietro; Amoroso, Sara; Cincera, Michele (2020):

### Corporate R&D intensity decomposition. Different data, different results?

In: *Science and Public Policy* 47 (4), S. 458–473. DOI: 10.1093/scipol/scaa026.

#### Abstract:

Research and Development (R&D) indicators are used to facilitate international comparisons and as targets for research and innovation policy. An example of such an indicator is R&D intensity. The decomposition of the aggregate corporate R&D intensity is able to explain the differences in R&D intensity between countries by determining whether is the result of firms' underinvestment in R&D or of the differences across sectors. Despite its importance, the literature of corporate R&D intensity decomposition has been developed only recently. This article reviews for the first time the different methodological frameworks of corporate R&D intensity decomposition and how they are used in practice, shedding light on why sometimes empirical results seem to be contradictory. It inspects how the use of different data sources and analytical methods affect R&D intensity decomposition results, and what the analytical and policy implications are. The article also provides methodological and analytical guidance to analysts and policymakers.

Olson, Julia; Da Silva, Patricia Pinto (2020):

### Knowledge production at the science-policy interface. Lessons from fisheries scientists.

In: *Science and Public Policy* 47 (1), S. 47–55. DOI: 10.1093/scipol/scz045.

#### Abstract:

While fisheries science in the USA has in the past been dominated by mode 1 knowledge production that is discipline-specific and focused on basic research, it has increasingly opened up to concerns with relevance, participation, and interdisciplinary inquiry. We consider how this transition has been experienced through the analysis of oral histories conducted with marine scientists, looking at the changes they have seen to their role as scientists and to the practice of doing science at the interface of knowledge production and policy. In particular, we examine scientists' ideas about and experiences of collaboration, public responsibility, freedom and politics in science, diversity and outreach, involvement, and relevance to society. In so doing, we explore the implications of the co-production of science and policy as traditional domain boundaries are increasingly problematized.

Pang, Zhenjing (2020):

### How does information dependence affect public attitudes towards genetically modified technology in China?

In: *Science and Public Policy* 47 (1), S. 125–136. DOI: 10.1093/scipol/scz052.

#### Abstract:

This study presents a careful understanding of the impact of information dependence on public attitudes (PAs) towards genetically modified (GM) technology in China by employing a structural equation modelling approach. Results in this study provide further empirical evidence to support the point of view that PAs towards GM technology vary with their information dependence. Information evaluation is the reasoning mechanism between information dependence and the perception of risks and benefits, ultimately determining PAs towards GM technology. Empirical results can serve as the basis for risk communication, suggesting that the public sector, scientific institutions, scientists, and officials must be more active in sharing scientific knowledge about GM technology with the public by developing more open channels for the dissemination of authoritative information, and public education is also needed. On the other hand, the medias' discourse system on GM technology should return to the scientific field for inspiring a rational attitude towards GM technology.

Parthasarathy, Shobita (2020):

### Approaching intellectual property scholarship differently. A qualitative research review and agenda.

In: *Science and Public Policy* 47 (5), S. 627–637. DOI: 10.1093/scipol/scaa010.

*Abstract:*

Social and policy interest in intellectual property, and patents, in particular, is growing. This is reflected in the rise of scholarly inquiry on the topic beyond the legal community, including among social scientists and humanists. In this article, I advocate for expanding qualitative research on patents and intellectual property related to innovation, arguing that it is essential for political and policy discussion. I review existing work and suggest avenues forward along four lines of inquiry: the political economy of intellectual property, the relationship between patents and innovation, the broader implications of intellectual property for social and political orders, and public participation in intellectual property law and policy. Throughout, I use the emerging field of precision medicine—and specifically, efforts to create intellectual property policies that promote open science and innovation—to explore how qualitative methodologies can help us understand the context and consequences of intellectual property law and policy and, ultimately, make better decisions to govern innovation.

Pillai, Vishnu Sivarudran; Matus, Kira J. M. (2020):

### Towards a responsible integration of artificial intelligence technology in the construction sector.

In: *Science and Public Policy* 47 (5), S. 689–704. DOI: 10.1093/scipol/scaa073.

*Abstract:*

The uptake of artificial intelligence (AI) innovations in the construction industry implies new physical and socio-political risks. Risk analysis is crucial to managing these risks, but is challenging due to the inherent complexity and lack of applied knowledge specific to construction activities. We forecast potential AI innovation trends related to construction from a keyword concurrence analysis of 974 journal articles. We use this analysis to identify potential sector-specific risks in construction activities by forming a risk map based on an analysis of ninety-four articles related to the ethics and impacts of AI technologies. We found that trends in innovation more often involve areas in construction considered ‘back-end’ tasks, as opposed to ‘on-site’. Thus, the potential risks and regulatory challenges from the use of AI technology in the construction sector will be legal, financial, and social, as opposed to risks involving physical harm to users on construction sites.

Piro, Fredrik Niclas; Boring, Pal; Scordato, Lisa; Aksnes, Dag W. (2020):

### University characteristics and probabilities for funding of proposals in the European Framework Programs.

In: *Science and Public Policy* 47 (4), S. 581–593. DOI: 10.1093/scipol/scaa037.

*Abstract:*

Previous studies have pointed at participation in the European Framework Programs for Research and Innovation as elite driven, foremost by large and prestigious universities. By analyzing all proposals (including rejected proposals) rather than funded projects only, we have investigated whether such findings also hold for success in proposal decisions. We study which university characteristics are associated with successful proposal outcomes. Our study finds that university size is indeed an important driver for success, but independent of size; it is essential with a relative high volume of proposals. Those Higher Education Institutions who submit relatively many proposals compared to their size performs better, especially in the European Research Council. What are important success criteria vary across thematic areas and to some extent over time, reflecting changing goals of the EU programs. Success is based on complex mechanisms, where many universities—irrespective of size—for different reasons perform well in the framework programs.

Polonen, Janne; Engels, Tim; Guns, Raf (2020):

### Ambiguity in identification of peer-reviewed publications in the Finnish and Flemish performance-based research funding systems.

In: *Science and Public Policy* 47 (1), S. 1–15. DOI: 10.1093/scipol/scz041.

*Abstract:*

In performance-based research funding systems evidence of peer review is often considered a requirement for publications to be included. Originating from the sciences, pre-publication peer review is very common in the publishing process, also in the social sciences and humanities. Sometimes, however, it is ambiguous whether a publication is peer-reviewed or not. In this contribution, we analyse the ambiguity in identifying a journal's or publication's peer-review status by comparing the classification of journals in Finland and Flanders, and by taking stock of Finnish authors' reporting of peer-review status of publications. We find that ambiguity in terms of peer review status is rather common, especially in the humanities. Indeed, we find differences in peer review status in about 10 per cent of all cases, both when comparing Finland and Flanders, and when comparing author-reported and centralised identification of peer-review status.

Popa, Eugen Octav; Blok, Vincent; Wesselink, Renate (2020):

### A processual approach to friction in quadruple helix collaborations.

In: *Science and Public Policy* 47 (6), S. 876–889. DOI: 10.1093/scipol/scaa054.

*Abstract:*

R&D collaborations between industry, government, civil society, and research (also known as 'quadruple helix collaborations' (QHCs)) have recently gained attention from R&D theorists and practitioners. In aiming to come to grips with their complexity, past models have generally taken a stakeholder-analytical approach based on stakeholder types. Yet stakeholder types are difficult to operationalise. We therefore argue that a processual model is more suited for studying the interaction in QHCs because it eschews matters of titles and identities. We develop such a model in which the QHC is represented as a process of generating four types of value: research value, market value, political value, and societal value. We then apply this processual model in analysing real-life cases of friction in QHCs. Friction is seen, not as an interpersonal clash, but as a discrepancy between two or more value-creation processes that compete for limited resources (some over-performing while others under-performing).

Pozzo, Riccardo; Filippetti, Andrea; Paolucci, Mario; Virgili, Vania (2020):

### What does cultural innovation stand for? Dimensions, processes, outcomes of a new innovation category.

In: *Science and Public Policy* 47 (3), S. 425–433. DOI: 10.1093/scipol/scaa023.

*Abstract:*

This article introduces the notion of cultural innovation, which requires adapting our approach to co-creation. The argument opens with a first conceptualization of cultural innovation as an additional and autonomous category of the complex processes of co-creation. The dimensions of cultural innovation are contrasted against other forms of innovation. In a second step, the article makes an unprecedented attempt in describing processes and outcomes of cultural innovation, while showing their operationalization in some empirical case studies. In the conclusion, the article considers policy implications resulting from the novel definition of cultural innovation as the outcome of complex processes that involve the reflection of knowledge flows across the social environment within communities of practices while fostering the inclusion of diversity in society. First and foremost, cultural innovation takes a critical stance against inequalities in the distribution of knowledge and builds innovation for improving the welfare of individuals and communities.

Prainsack, Barbara (2020):

### The meaning and enactment of openness in Personalised and Precision Medicine.

In: *Science and Public Policy* 47 (5), S. 647–654. DOI: 10.1093/scipol/scaa013.

*Abstract:*

Along with the proliferation of digital technologies and the datafication of wider areas of people's bodies and lives, the meaning of Personalised Medicine has shifted. In contemporary Personalised and 'Precision' Medicine, openness typically features in terms of calls for data sharing to ensure the availability of the very data sets required for the personalisation of diagnosis, treatment, and prevention. But there are other, more fundamental ways of considering openness in the context

of Personalised and Precision Medicine that set different goals for public policy: (1) in an ontological sense, pertaining to the openness of the category of the 'person' in Personalised and Precision Medicine; (2) in a pluralistic sense, regarding the plurality of personal and societal perspectives and values in healthcare; and (3) in an emancipatory sense, counteracting concentrations of power around corporate actors—including consumer tech companies—in the health domain. The enhancement of public benefit and social justice and the protection of privacy are key goals for public policy in this context.

Rassenfosse, Gaetan de; Seliger, Florian (2020):

### Sources of knowledge flow between developed and developing nations.

In: *Science and Public Policy* 47 (1), S. 16–30. DOI: 10.1093/scipol/scz042.

#### Abstract:

This article provides a long-term view on the sources of knowledge flow between developed and developing nations. It relies on patent data to explore three potential sources: R&D collaboration, technology sourcing, and technology transfer. All three sources provide a very consistent message. First, knowledge flows from East Asia, particularly China, are occurring more frequently. Second, knowledge flows are increasingly concentrated in information and communication technologies. Third, the USA and Canada had traditionally larger patenting activity with Asia than Europe, but the share of activity between Europe and Asia has been increasing in recent years. Larger patenting activity between the USA and Canada and Asia implies that North America is more likely to benefit from the reverse knowledge flows than Europe as China progresses toward becoming a technological leader.

Rossmann, Maximilian; Roesch, Christine (2020):

### Key-Narratives of Microalgae Nutrition. Exploring futures through a public Delphi survey in Germany.

In: *Science and Public Policy* 47 (1), S. 137–147. DOI: 10.1093/scipol/scz053.

#### Abstract:

This paper analyses public visions of microalgae as a food source to explain present innovation paths of a yet unproven scientific technology. The paper highlights the multi-perspectivity of contested futures, focusing on the role of generalized narratives as boundary objects. Using disaggregative policy Delphi, we reveal the key-narratives of microalgae nutrition with regard to expectability, desirability, and popularity. The study involved a two-round online survey with 229 participants, who were asked open and closed questions. We then clustered the answers and gave feedback in form of generalized narratives. Participants want microalgae to sustainably feed the world, while they also expect microalgae to be more likely a health product or an inconspicuous food substitute. Our findings show that Delphi methods are not only suitable to look into the future, but also for empirical research into perspectives on the future that help distinguish and hone the cognitive interest of politicians and researchers.

Sarkki, Simo; Heikkinen, Hannu I.; Komu, Teresa; Partanen, Mari; Vanhanen, Karoliina; Lepy, Elise (2020):

### How boundary objects help to perform roles of science arbiter, honest broker, and issue advocate.

In: *Science and Public Policy* 47 (2), S. 161–171. DOI: 10.1093/scipol/scz055.

#### Abstract:

We examine roles and knowledge by which researchers can enhance connections between science, policy, and society. We arranged a participatory scenario workshop with representatives from environmental administration to discuss how different land-use governance arrangements link to sustainability of reindeer herding in northern Finland. We used fast track scenarios as boundary objects that aimed to bring reindeer herders' problem definitions to be discussed with administrators. First, we performed the role of science arbiter by using our previous research with reindeer herders as the starting point for the discussions. Next, we discussed and elaborated diverse future alternatives via the role of honest broker. Finally, we were interpreted as issue advocates because the scenario exercise reduced the scope of preferable policy options for administrators. Performing these boundary-spanning roles in the same process, but each, in turn, enables researchers to offer views on sustainability via scenarios that break easily acceptable conventions.

Schölvinck, Anne-Floor M.; Pittens, Carina A. C. M.; Broerse, Jacqueline E. W. (2020):

Patient involvement in agenda-setting processes in health research policy. A boundary work perspective.

In: *Science and Public Policy* 47 (2), S. 246–255. DOI: 10.1093/scipol/scaa001.

*Abstract:*

N.A.

Sideri, Katerina (2020):

Prospect patents, data markets, and the commons in data-driven medicine. Openness and the political economy of intellectual property rights.

In: *Science and Public Policy* 47 (5), S. 668–677. DOI: 10.1093/scipol/scaa011.

*Abstract:*

Scholars who point to political influences and the regulatory function of patent courts in the USA have long questioned the courts' subjective interpretation of what 'things' can be claimed as inventions. The present article sheds light on a different but related facet: the role of the courts in regulating knowledge production. I argue that the recent cases decided by the US Supreme Court and the Federal Circuit, which made diagnostics and software very difficult to patent and which attracted criticism for a wealth of different reasons, are fine case studies of the current debate over the proper role of the state in regulating the marketplace and knowledge production in the emerging information economy. The article explains that these patents are prospect patents that may be used by a monopolist to collect data that everybody else needs in order to compete effectively. As such, they raise familiar concerns about failure of coordination emerging as a result of a monopolist controlling a resource such as datasets that others need and cannot replicate. In effect, the courts regulated the market, primarily focusing on ensuring the free flow of data in the emerging marketplace very much in the spirit of the 'free the data' language in various policy initiatives, yet at the same time with an eye to boost downstream innovation. In doing so, these decisions essentially endorse practices of personal information processing which constitute a new type of public domain: a source of raw materials which are there for the taking and which have become most important inputs to commercial activity. From this vantage point of view, the legal interpretation of the private and the shared legitimizes a model of data extraction from individuals, the raw material of information capitalism, that will fuel the next generation of data-intensive therapeutics in the field of data-driven medicine.

Simons, Arno; Hendriks, Barbara; Reinhart, Martin; Ahmed, Faten (2020):

How practitioners between bench and bedside evaluate biomedical translation?

In: *Science and Public Policy* 47 (4), S. 561–570. DOI: 10.1093/scipol/scaa035.

*Abstract:*

While translational research (TR) aims at changing regulatory and organizational practices in the biomedical field, surprisingly little is known about how practitioners in the lab or the clinic think about translation. Addressing this gap, we present results from a Q-methodological study on the meanings and values associated with translation held by researchers, clinicians, and clinician scientists at two major German biomedical research institutions implementing TR strategies. We identify eight different collective understandings of translation, with respect to both where primary translational problems are located and what the most immediate and effective measures should be. Our findings suggest that there may not be a one-fits-all solution for improving translation and that general regulatory and organizational measures may be less effective than measures addressing specific audiences and their specific viewpoints. TR does, however, work well as an umbrella term in stimulating and orchestrating a productive interaction between various viewpoints, practices, and contexts.



Tang, Yongli; Hu, Xinyue; Petti, Claudio; Thurer, Matthias (2020):

Institution-driven innovation in Guangdong firms. Moderating effects of in-house formal R&D and industrial environment turbulence.

In: *Science and Public Policy* 47 (2), S. 194–206. DOI: 10.1093/scipol/scz058.

*Abstract:*

This article explores the moderating effects of in-house formal R&D and industrial environment turbulence on the relationship between institutional drivers, in terms of incentives and pressures, and firm innovation. Hypotheses were tested on a sample of manufacturing firms in Guangdong Province of China, where institutional changes and governmental policies play prominent roles in shaping innovation. Results show a positive main effect of institutional incentives, but an insignificant main effect of institutional pressures. In-house formal R&D and industrial turbulence negatively moderate the institutional incentives-innovations relationship, yet positively moderate the institutional pressures-innovations relationship. This study links the innovation systems literature with the institution-based view and deepens the understanding of the joint forces of institutional transitions, industrial changes, and resource heterogeneity in shaping innovation. The findings also inform managers and policymakers in institutional transition environments to better manage institutional drivers of innovation by considering firm- and industry-specific characteristics.

Tödttling, Franz; Tripl, Michaela; Frangenheim, Alexandra (2020):

Policy options for green regional development. Adopting a production and application perspective.

In: *Science and Public Policy* 47 (6), S. 865–875. DOI: 10.1093/scipol/scaa051.

*Abstract:*

Green and sustainable developments have received increasing attention in recent years due to challenges emanating from climate change and worsening environmental conditions. Although these are problems of global nature, actions have to be taken often at lower spatial scales. We focus on innovation and industrial policies and on the regional level since green development often can be supported here by respective policies. However, effective policies have to consider that individual regions face different kinds of challenges for moving towards a 'greener' future. This article develops a framework that allows taking such differences into account. We distinguish between the production side of 'green technologies' (i.e. the industries that develop and produce such technologies) and the application side (i.e. the adoption of such technologies by firms and the wider society), and we investigate what challenges might prevail on both sides and explore the potential role of policies for different types of regions.

van Welie, Mara J.; Boon, Wouter P. C.; Truffer, Bernhard (2020):

Innovation system formation in international development cooperation. The role of intermediaries in urban sanitation.

In: *Science and Public Policy* 47 (3), S. 333–347. DOI: 10.1093/scipol/scaa015.

*Abstract:*

The transformation of urban basic service sectors towards more sustainability is one of the 'grand challenges' for public policy, globally. A particular urgent problem is the provision of sanitation in cities in low-income countries. The globally dominant centralised sewerage approach has proven incapable to reach many of the urban poor. Recently, an increasing number of actors in international development cooperation has started to develop alternative safely managed non-grid approaches. We approach their efforts as an emerging 'global innovation system' and investigate how its development can be supported by systemic intermediaries. We analyse the activities of the 'Sustainable Sanitation Alliance', an international network that coordinates activities in the sanitation sector and thereby supports this innovation system. The findings show how demanding it is to fulfil an intermediary role in a global innovation system, because of the need to consider system processes at different scales, in each phase of system building.

Varumo, Liisa; Paloniemi, Riikka; Kelemen, Eszter (2020):

**Challenges and solutions in developing legitimate online participation for EU biodiversity and ecosystem services policies.**

In: *Science and Public Policy* 47 (4), S. 571–580. DOI: 10.1093/scipol/scaa036.

*Abstract:*

To support legitimate European Union (EU) biodiversity policy development, there is a growing momentum to engage society in these policy processes and build meaningful and inclusive dialogue between science, policy, and society in policy deliberation. So far, engagement efforts have been made to encourage citizen participation in knowledge production via, for example, citizen science. At EU level means to encourage public participation have included a variety of online mechanisms for spreading information and promoting public deliberation. Despite these developments, the involvement of the general public in policy-making at the EU level has been rather inconsistent to date. In this article, we evaluate online science cafes as potential means to encourage dialogue between science, policy, and society; we ask what elements in their design and implementation are essential for inclusive dialogue between science, policy, and society. Our findings emphasise iterative dialogue when approaching multi-scalar challenges. This has important implications for developing legitimate participation across Europe.

Vega-Jurado, Jaider; Manjarres-Henriquez, Liney; Fernandez-de-Lucio, Ignacio; Naranjo-Africano, Gloria (2020):

**A virtuous circle? The effects of university-industry relationships in a region with low absorptive capacity.**

In: *Science and Public Policy* 47 (4), S. 503–513. DOI: 10.1093/scipol/scaa030.

*Abstract:*

This article examines the effects of university-industry relationships (UIRs) in a Spanish region-Valencian Community-with low absorptive capacity. The analysis considers two effects of UIRs, one on business innovation and the other on the scientific production of academic researchers. The results reveal that UIRs have no significant effects on either firms' technological innovation or academic scientific production. Therefore, these results suggest that, in territories with low absorptive capacity, UIRs, mainly R&D-based, do not produce the effects found in other contexts, which requires some rethinking about these types of territories.

Wang, Xiaozhen; Jiang, Zihao; Zheng, Ying (2020):

**Effect of innovation policy mix on innovation efficiency. Evidence from Chinese wind power industry chain.**

In: *Science and Public Policy* 47 (1), S. 31–46. DOI: 10.1093/scipol/scz043.

*Abstract:*

Wind power (WP) is a long-term strategic energy alternative for China to cope with energy shortage and environmental crisis. Yet, how innovation policies precisely affect innovation efficiency (IE) of WP industry remains poorly understood. Therefore, based on the micro-data of Chinese WP-listed companies, this article measures the IE of enterprises in different links of wind power industry chain (WPIC), and discusses the effects of innovation policy and its mix on IE. The results show that there exists non-efficiency problems in Chinese WP industry during 2014-7, but the innovation of enterprises in the upstream of WPIC is DEA efficient. IE of enterprises in the midstream presents a U-shape, which fluctuates periodically in downstream. In addition, neither a single policy nor a policy mix has a significant impact on IE of enterprises in the upstream and midstream of WPIC, but has a significant negative effect on that of the downstream.

Wanzenböck, Iris; Wesseling, Joeri H.; Frenken, Koen; Hekkert, Marko P.; Weber, K. Matthias (2020):

**A framework for mission-oriented innovation policy. Alternative pathways through the problem-solution space.**

In: *Science and Public Policy* 47 (4), S. 474–489. DOI: 10.1093/scipol/scaa027.

*Abstract:*

We aim for a better conceptualization of mission-oriented innovation policy (MIP). Our starting point is an analytical decomposition of societal problems and innovative solutions based on three dimensions of wickedness: (1) contestation; (2) complexity; and (3) uncertainty. We argue that both problems and solutions can be divergent (contested, complex, and uncertain) or convergent (uncontested, well-defined, and informed). Based on the resulting problem-solution typology, we suggest a process-oriented view on MIP and discuss three alternative pathways along which convergence between problems and solutions can be achieved to come from wicked problems to legitimate solutions. We illustrate these pathways using examples for different societal problems related to health (smoking bans), security (CCTV), and energy (wind turbines). For policy makers, locating a societal challenge in this problem-solution space, and implementing policy strategies to achieve problem and solution convergence, is expected to accelerate both the legitimacy of a mission and the resulting solutions.

Whetsell, Travis A.; Leiblein, Michael J.; Wagner, Caroline S. (2020):

**Between promise and performance. Science and technology policy implementation through network governance.**

In: *Science and Public Policy* 47 (1), S. 78–91. DOI: 10.1093/scipol/scz048.

*Abstract:*

This research analyzes the effects of US science and technology policy on the technological performance of organizations in a global strategic alliance network. During the mid-1980s, the US semiconductor industry appeared to be collapsing. Industry leaders and policymakers moved to support and protect US firms by creating a program called Sematech. While many scholars regard Sematech as a success, how the program succeeded remains unclear. This study re-contextualizes Sematech as a network administrative organization which lowered cooperation costs and enhanced resource combination for innovation at the cutting edge. This study combines network analysis and longitudinal regression techniques to test the effects of public policy on organizational network position and technological performance in an unbalanced panel of semiconductor firms between 1986 and 2001. This research suggests that governments might achieve policy through inter-organizational innovations aimed at the development and administration of robust governance networks.

Zang, Leizhen; Xiong, Feng (2020):

**How (when) does technological innovation improve government effectiveness? An empirical investigation with cross-national evidence.**

In: *Science and Public Policy* 47 (1), S. 103–113. DOI: 10.1093/scipol/scz050.

*Abstract:*

How to understand the impacts of government effectiveness (GE) on technological innovation has received full attention. But in turn, it is still a puzzle how technological innovation promotes GE. With the intention of providing rigorous empirical evidence to fill the gap, authors efficiently selected variables based on novel machine learning and analyzed the influence mechanism of technological innovation on GE through different models, using panel data from global countries over 20 years. The investigation has revealed that the relationship between technological innovation and GE is not a simple linear relation but a more complicated inverted U-shaped relation. We also distinguished the impacts of technological innovation on GE in countries with diverse democratic and developing levels. This pioneering work has provided new insights to our understanding of innovation diffusion and determinants of GE.

Zhang, Gupeng; Xiong, Libin; Wang, Xiao; Dong, Jianing; Duan, Hongbo (2020):

Artificial selection versus natural selection. Which causes the Matthew effect of science funding allocation in China?

In: *Science and Public Policy* 47 (3), S. 434–445. DOI: 10.1093/scipol/scaa024.

*Abstract:*

To investigate either artificial or natural selection leads to the Matthew effect in the science funding allocation and its consequences, this study retrieves 274,732 publications by Chinese scientists from the Web of Science and examines how the disparity of science funding determines scientists' research performance. We employ the Negative Binomial Model and other models to regress the publication's citation times, which measures the research performance, on the number of funding grants and their amounts of currency that the publication receives, which measures the disparity of science funding. The empirical results suggest an inverted U-shaped relationship. However, the optimum number of funding grants far exceeds the actual number that most publications receive, implying that increasing the funding for academic research positively impacts scientists' research performance. The natural disparity thus plays a major role in distributing the science funding. Additionally, China's publication-based academic assessment system may be another main cause.

Zhou, Ping; Yang, Lichao; Hu, Pingbo; Cheng, Yang; Zhou, Shenghan (2020):

Inter-provincial differences of technical innovation efficiency among farmer professional cooperatives in China.

In: *Science and Public Policy* 47 (3), S. 410–424. DOI: 10.1093/scipol/scaa022.

*Abstract:*

The technical innovation efficiency of farmer professional cooperatives has a far-reaching impact on the economic transformation and development in rural China, but it has been rarely studied. Addressing this gap, this article builds an index evaluating system for the technical innovation efficiency of provinces through a three-stage data envelopment analysis model that measures the relative efficiency of the technical innovation of cooperatives in China's thirty-one provinces. The results show that the Eastern and Central provinces in China are more efficient than the Western provinces in terms of the technical innovation efficiency of farmer professional cooperatives. However, due to the lack of sustainable innovative capability of these cooperatives, investment redundancy is common in technical innovation. Besides, the impact of the external technology environment on the technical innovation of provincial farmer professional cooperatives is significant, and the scale of the rural market greatly incentivizes the cooperative technical innovation. Some policy suggestions are accordingly proposed.

Zhou, William Chongyang; Wang, Ruicheng (2020):

Intellectual property, institutional dynamics, and firm innovation.

In: *Science and Public Policy* 47 (3), S. 299–312. DOI: 10.1093/scipol/scaa004.

*Abstract:*

The relationship between intellectual property (IP) and innovation has been discussed extensively in extant literature. However, the dynamic essence of IP as an institutional context, particularly its setback and reversal, has received little attention. Through the lens of institutional dynamics theory, this study identifies four asymmetric categories of IP institutional dynamics: accelerating reforms, decaying reforms, decaying reversals, and accelerating reversals in a typical emerging market, China. Favorable institutional dynamics (i.e. accelerating reforms and decaying reversals) improve firms' R&D efficiency, whereas unfavorable institutional dynamics (i.e. decaying reforms and accelerating reversals) reduce R&D efficiency. Moreover, R&D input decreases in an unfavorable institutional context.

## Specials

Abi Younes, George; Ayoubi, Charles; Ballester, Omar; Cristelli, Gabriele; Rassenfosse, Gaétan de; Foray, Dominique et al. (2020):

### COVID-19. Insights from innovation economists.

[Perspective]. In: *Science and Public Policy* 47 (5), S. 733–745. DOI: 10.1093/scipol/scaa028.

#### Abstract:

The present document provides the take of innovation economists on the COVID-19 pandemic. It targets the general public and focuses on questions related to the Science, Technology, and Innovation ecosystem. It provides a reading of current real-world developments using economic reasoning and relying on existing economic research.

Cho, Seongkyung; Hayter, Christopher S. (2020):

### Erratum to: Under pressure: A systematic review of stress and its impact among graduate students.

[Erratum]. In: *Science and Public Policy* 47 (6), S. 893. DOI: 10.1093/scipol/scab015.

#### Abstract:

This is a correction to:

*Science and Public Policy*, Volume 47, Issue 6, December 2020, Pages 758–771, <https://doi.org/10.1093/scipol/scaa053>

In the originally published version of this manuscript, requested author amendments to the appendix table and the figure legends for Figure 2 were inadvertently omitted prior to publishing. The publisher apologizes for the error and has since made the necessary corrections.

Christensen, Malene Vinther; Nieminen, Mika; Altenhofer, Marlene; Tangcoigne, Elise; Mejlgaard, Niels; Griessler, Erich; Filacek, Adolf (2020):

### What's in a name? Perceptions and promotion of responsible research and innovation practices across Europe.

[Erratum]. In: *Science and Public Policy* 47 (6), S. 892. DOI: 10.1093/scipol/scaa040.

#### Abstract:

This is a correction to:

*Science and Public Policy*, Volume 47, Issue 3, June 2020, Pages 360–370, <https://doi.org/10.1093/scipol/scaa018>

In the above article, Dr Elise Tancoigne's surname was originally misspelled as Tangcoigne. This has been corrected online.

Loureiro, Rafael; Markovitch, Omer; Riley, Crystal S.; Cleaves, H. James; Mogoşanu, I. Haritina; Paulino-Lima, Ivan G. et al. (2020):

### Perspective: Science policy through public engagement.

[Perspective]. In: *Science and Public Policy*. DOI: 10.1093/scipol/scaa039.

#### Abstract:

While tensions may lie between science and policy, we argue that dissemination and public engagement are key in alleviating those perceived tensions. Science being valued by society results in fact-based policy-making being demanded by constituents. Constituents' demands will yield representatives who are familiar with the scientific process and research to inform policy decisions.

Sharif, Naubahar; Xing, Jack Linzhou (2020):

Restricted generalizability of city innovation policies. The case of E-hailing in China (vol 56, pg 1, 2019).

[Erratum]. In: *Science and Public Policy* 47 (1), S. 148. DOI: 10.1093/scipol/scz044.

*Abstract:*

Science and Public Policy, 2019, 1–15, doi: 10.1093/scipol/scz031 [Titel anhand dieser DOI in Citavi-Projekt übernehmen]  
This article was originally published, mistakenly, under the following title: ‘Beijing Municipal Restricted generalizability of city innovation policies: The case of E-hailing in China’ This has now been corrected to: ‘Restricted generalizability of city innovation policies: The case of E-hailing in China’ The publisher would like to apologise for this error.

Zhao, Jiaying; Azad, Meghan B.; Bertrand, Erin M.; Burton, Cole; Crooks, Valorie A.; Dawson, Jackie et al. (2020):

Canadian Science Meets Parliament. Building relationships between scientists and policymakers (vol 47, scz062, 2020).

[Erratum]. In: *Science and Public Policy* 47 (2), S. 298. DOI: 10.1093/scipol/scaa017.

*Abstract:*

The first version of this article listed one of its authors as Amanda T. Moehring rather than Amanda J. Moehring. This has now been corrected online and is correct in print. The authors regret the error. Science and Public Policy, 2020, <https://doi.org/10.1093/scipol/scz062>

## Original Articles

Aurini, Janice; Missaghian, Rod; Milian, Roger Pizarro (2020):

Educational Status Hierarchies, After-School Activities, and Parenting Logics. Lessons from Canada.

In: *Sociology of Education* 93 (2), S. 173–189. DOI: 10.1177/0038040720908173.

*Abstract:*

This article draws from American research on “concerted cultivation” to compare the parenting logics of 41 upper-middle-class parents in Toronto, Canada. We consider not only how parents structure their children’s after-school time (what parents do) but also how the broader ecology of schooling informs their parenting logics (how they rationalize their actions). We find that parenting practices mirror American research. Upper-middle-class families enroll their children in multiple lessons and cultivate their children’s skills. However, unlike their American counterparts, Canadian parenting logics are not explicitly stratification oriented, guided by a desire to access elite universities. Canada’s relatively flat stratification system of higher education, where prestige differences between universities are minimal, prompts the emergence of a more expressive parenting ethos. Our findings draw attention to the macrofoundations of social behavior by articulating the connection between parenting logics and educational status hierarchies. We conclude by considering the implications of cross-national differences to theories of parenting and social stratification.

Austin, Megan (2020):

Measuring High School Curricular Intensity over Three Decades.

In: *Sociology of Education* 93 (1), S. 65–90. DOI: 10.1177/0038040719885123.

*Abstract:*

This article presents a new measure of curricular intensity that is objective, parsimonious, clearly defined, replicable, and comparable over time for use by researchers interested in examining trends, causes, and outcomes of high school course taking. After proposing a reduced-form version of Adelman’s curricular intensity index comprised of number of courses completed in English and core science, highest math course completed, and whether students took at least one Advanced Placement course, I test the measure in four National Center for Education Statistics high school longitudinal studies using confirmatory factor analysis. I examine the methodological implications of the measure by conducting multigroup tests for invariance across cohorts to understand how curricular intensity changes over time and comparing the measure’s predictive validity to that of alternative measures of course taking. I then examine substantive implications of the measure through analysis of trends and inequalities in curricular intensity. The four course-taking variables combined create a strong measure of curricular intensity across cohorts that performs as well as or better than Adelman’s index in explaining variance in postsecondary outcomes and predicting postsecondary success. The measure accounts for shifts over time in the relative contribution of each course-taking variable to overall curricular intensity, facilitating more accurate comparisons across cohorts or data sets. I provide practical guidance for using the measure in other data sets, including state- and district-level data, to analyze overall trends and gaps in curricular intensity and its role in postsecondary success, and I discuss some potential uses of the measure for future research and policy.

Blake, Mary Kate (2020):

Other Duties as Assigned. The Ambiguous Role of the High School Counselor.

In: *Sociology of Education* 93 (4), S. 315–330. DOI: 10.1177/0038040720932563.

*Abstract:*

Previous research suggests high school counselors are not living up to their potential as social/emotional, academic, and postsecondary counselors. This article addresses this concern by studying how schools and districts utilize counselors. Through interviews and observations of high school counselors, administrators, and counselor educators in an urban midwestern community, I find that counselors suffer from role ambiguity and role conflict due to lack of a clear job description, overlap with similar professions, supervision by noncounseling administrators, inadequate forms of performance evaluation, and conflict between their roles as counselors and educators. This conflict leads to poor boundaries at work, with counselors receiving an overwhelming amount of noncounseling duties that reduce their time with students. High school counselors have the potential to improve student social and academic outcomes, but these obstacles of role ambiguity and role conflict reduce them to school managers rather than master's-level trained educators with a mental health background.

Brint, Steven; German, Komi T.; Anderson-Natale, Kayleigh; Shuker, Zeinab F.; Wang, Suki (2020):

### Where Ivy Matters. The Educational Backgrounds of US Cultural Elites.

In: *Sociology of Education* 93 (2), S. 153–172. DOI: 10.1177/0038040719898505.

*Abstract:*

Status transmission theory argues that leading educational institutions prepare individuals from privileged backgrounds for positions of prestige and power in their societies. We examine the educational backgrounds of more than 2,900 members of the U.S. cultural elite and compare these backgrounds to a sample of nearly 4,000 business and political leaders. We find that the leading U.S. educational institutions are substantially more important for preparing future members of the cultural elite than they are for preparing future members of the business or political elite. In addition, members of the cultural elite who are recognized for outstanding achievements by peers and experts are much more likely to have obtained degrees from the leading educational institutions than are those who achieve acclaim from popular audiences. By focusing on the extent to which industries and cultural domains depend on quickness and facility in the absorption and manipulation of complex and sophisticated symbolic media, our analysis leads to an important specification of the role of highly selective colleges and universities in elite formation.

Candipan, Jennifer (2020):

### Choosing Schools in Changing Places. Examining School Enrollment in Gentrifying Neighborhoods.

In: *Sociology of Education* 93 (3), S. 215–237. DOI: 10.1177/0038040720910128.

*Abstract:*

School choice expansion in recent decades has weakened the strong link between neighborhoods and schools created under a strict residence-based school assignment system, decoupling residential and school enrollment decisions for some families. Recent work suggests that the neighborhood-school link is weakening the most in neighborhoods experiencing gentrification. Using a novel combination of individual, school, and neighborhood data that link children to both assigned and enrolled schools, this study examines family, school, and neighborhood factors that shape whether parents enroll in the assigned local school. I find that parents are more likely to opt out of neighborhood schools in gentrifying neighborhoods compared with non-gentrifying neighborhoods when nearby choice options are available. Recent movers to gentrifying neighborhoods bypass local schools more compared with parents who have lived in the neighborhood longer. Results have implications for thinking about neighborhood-school linkages in an era of school choice and urban change.

Clayton, Kristen A. (2020):

### Biracial Identity Development at Historically White and Historically Black Colleges and Universities.

In: *Sociology of Education* 93 (3), S. 238–255. DOI: 10.1177/0038040720926163.

*Abstract:*

This study explores the relationship between biracial identity development and college context. I draw on interviews with 49 black-white biracial first- and second-year students attending historically black colleges/universities (HBCUs) or historically white colleges/universities (HWCUs) and follow-up interviews with the same students at the end of college to explore how and why their racial identities changed over time. Most participants experienced racial identity change over



the course of the study, and this change was most often in the direction of a strengthened black identity for both HBCU and HWCU students. An increasing understanding of racism led students at both institutional types to develop stronger black identities. The processes that led to this heightened awareness of racism, however, differed across institutions. Reflected appraisals (HBCU students' impression that their peers included and accepted them as black and HWCU students' impression that their white peers excluded and labeled them as nonwhite) also played a role in students' strengthening black identities, as did increased contact with black peers (especially for HBCU students). This article describes the implications of biracial identity development for biracial students' psychosocial well-being, campus social adjustment, and college persistence.

Fiel, Jeremy E. (2020):

### Great Equalizer or Great Selector? Reconsidering Education as a Moderator of Intergenerational Transmissions.

In: *Sociology of Education* 93 (4), S. 353–371. DOI: 10.1177/0038040720927886.

#### Abstract:

A long-standing consensus among sociologists holds that educational attainment has an equalizing effect that increases mobility by moderating other avenues of intergenerational status transmission. This study argues that the evidence supporting this consensus may be distorted by two problems: measurement error in parents' socioeconomic standing and the educational system's tendency to progressively select people predisposed for mobility rather than to actually affect mobility. Analyses of family income mobility that address both of these problems in three longitudinal surveys converge on new findings. Intergenerational mobility is significantly lower among high school dropouts than among others, but there are no significant differences in mobility across higher education levels. This is consistent with compensatory advantage processes among the least educated in which individuals from advantaged backgrounds use family-based resources to compensate for their lack of human capital.

Fitzpatrick, Brian R.; Mustillo, Sarah (2020):

### The Right Fit? Classroom Mismatch in Middle School and Its Inconsistent Effect on Student Learning.

In: *Sociology of Education* 93 (3), S. 277–294. DOI: 10.1177/0038040720918857.

#### Abstract:

Research on college admissions shows that all students tend to benefit from overmatching, but high-status students are most likely to be overmatched, and low-status students are most likely to be undermatched. This study examines whether mismatching takes place when students are sorted into classrooms in middle school. Given prior research on effectively maintained inequality, we theorize that classroom sorting acts as an opportunity for privileged parents to obtain a qualitative advantage for their children. Our research uses administrative data from Indiana and hierarchical linear models to analyze classroom mismatch in sixth through eighth grades. We find that privileged students are more likely to be overmatched in both math and English language arts (ELA) classrooms but that overmatching is beneficial in math but detrimental in ELA. This suggests that inequality can be effectively maintained only if parents have an accurate understanding of what constitutes an advantage.

Furuta, Jared (2020):

### Liberal Individualism and the Globalization of Education as a Human Right. The Worldwide Decline of Early Tracking, 1960–2010.

In: *Sociology of Education* 93 (1), S. 1–19. DOI: 10.1177/0038040719873848.

#### Abstract:

This article examines global changes in tracking policies over the post–World War II period. Using a newly constructed quantitative panel data set of 139 countries from 1960 to 2010, I show that a majority of countries around the world have shifted away from sharply tracked institutions at the junior secondary level toward more formally “open” and “comprehensive” ones. To explain this trend, I argue that worldwide shifts away from more stratified and corporatist conceptions of the polity toward more liberal models led to the construction of norms of individual egalitarianism in the educational process, and this process delegitimated tracking at early ages. Findings from a series of panel regression

models indicate that countries that are more formally committed to individual rights and universalistic conceptions of the educational process are less likely to track students at the junior secondary level; some nation-specific characteristics, such as levels of economic development, also shape tracking at lower levels of schooling. Most countries, however, continue to track students at the senior secondary level. The persistence of tracking at this level suggests a tension between existing conceptions of education as a mechanism for both propagating equality and allocating individuals to unequal opportunities.

Geven, Sara; van de Werfhorst, Herman G. (2020):

**The Role of Intergenerational Networks in Students' School Performance in Two Differentiated Educational Systems. A Comparison of Between- and Within-Individual Estimates.**

In: *Sociology of Education* 93 (1), S. 40–64. DOI: 10.1177/0038040719882309.

*Abstract:*

In this article, we study the relationship between intergenerational networks in classrooms (i.e., relationships among parents in classrooms, and between parents and their children's classmates) and students' grades. Using panel data on complete classroom networks of approximately 3,000 adolescents and their parents in approximately 200 classes in both Germany and the Netherlands, we compare estimates based on between-student differences in intergenerational networks (i.e., between-individual estimates) to estimates based on changes students experience in their intergenerational networks over time (i.e., within-individual estimates). We also examine how the relationship between intergenerational networks and grades is contingent on students' location in the educational system (i.e., their ability track). When considering between-individual estimates, we find some support for a positive relationship between intergenerational networks and grades. However, we find no robust support when considering within-individual estimates. The findings suggest that between-individual estimates, which most previous research has relied on, may be confounded by unobserved differences across individuals. We find little support for variations in these estimates across ability tracks. We discuss the implications for Coleman's social capital theory on intergenerational closure.

Grujters, Rob J.; Behrman, Julia A. (2020):

**Learning Inequality in Francophone Africa. School Quality and the Educational Achievement of Rich and Poor Children.**

In: *Sociology of Education* 93 (3), S. 256–276. DOI: 10.1177/0038040720919379.

*Abstract:*

Influential reports about the "learning crisis" in the global South generally pay insufficient attention to social inequalities in learning. In this study, we explore the association between family socioeconomic status and learning outcomes in 10 francophone African countries using data from the Programme for the Analysis of Education Systems, a standardized assessment of pupils' mathematics and reading competence at the end of primary school. We start by showing that learning outcomes among grade 6 pupils are both poor and highly stratified. We then develop and test a conceptual framework that highlights three mechanisms through which family socioeconomic status might contribute to learning: (1) educational resources at home, (2) health and well-being, and (3) differences in school quality. We find that most of the effect of family background on learning outcomes operates through school quality, which results from a combination of the unequal distribution of resources (such as teachers and textbooks) across schools and high socioeconomic segregation between schools. On the basis of these results, we suggest that most countries in the region could improve equity as well as overall performance by "raising the floor" in school quality.

Hibel, Jacob; Penn, Daphne M. (2020):

**Bad Apples or Bad Orchards? An Organizational Analysis of Educator Cheating on Standardized Accountability Tests.**

In: *Sociology of Education* 93 (4), S. 331–352. DOI: 10.1177/0038040720927234.

*Abstract:*

Using an explanatory sequential mixed-methods design, we analyze quantitative administrative and survey data and qualitative archival data to examine the organizational character of standardized test cheating among educators in Georgia elementary schools. Applying a theoretical typology that identifies distinct forms of rule breaking in bureaucratic

organizations, we find that teacher-focused, individual-level explanations for cheating are inadequate, particularly in the context of large-scale cheating outbreaks. Our findings suggest cheating scandals tend to arise when rule-breaking decisions shift toward higher levels of the educational bureaucracy, and school and district leaders enact multiple strategies to motivate coordinated cheating efforts among lower-level educators. In these scenarios, a “bad apples” explanation focused on rogue teachers fails to account for the systematic organizational underpinnings of standardized test cheating. We describe the institutional and organizational predictors of organized adult cheating on standardized tests, and we conclude with a discussion of our findings’ implications for education policy and research.

Hofflinger, Alvaro; Hippel, Paul T. von (2020):

### Does Achievement Rise Fastest with School Choice, School Resources, or Family Resources? Chile from 2002 to 2013.

In: *Sociology of Education* 93 (2), S. 132–152. DOI: 10.1177/0038040719899358.

#### Abstract:

Debates in education policy draw on different theories about how to raise children’s achievement. The school competition theory holds that achievement rises when students can choose among competing schools. The school resources theory holds that achievement rises with schools’ resources per student. The family resources theory holds that achievement rises as parents become more educated and earn higher incomes. We test all three theories in Chile between 2002 and 2013, when reading and math scores rose by 0.2 to 0.3 standard deviations, as school competition, school resources, and family resources all increased. We compare Chilean municipalities in a difference-in-differences analysis, asking whether test scores rose fastest in municipalities with greater increases in school competition, school resources, or family resources. We find that municipal test scores did not rise with school competition but did rise with family resources (parental education, not income) and, to a smaller extent, with school resources (as measured by class sizes). Results favor the family resource theory, and to a lesser extent the school resource theory, but not the school competition theory.

Owens, Jayanti (2020):

### Relationships between an ADHD Diagnosis and Future School Behaviors among Children with Mild Behavioral Problems.

In: *Sociology of Education* 93 (3), S. 191–214. DOI: 10.1177/0038040720909296.

#### Abstract:

Attention-deficit/hyperactivity disorder (ADHD) is the most common behavioral disorder among U.S. children. ADHD diagnoses have risen among children with both severe and mild behavioral problems, partly in response to mounting academic pressure. This study examines the consequences of ADHD diagnosis. Diagnosis can bring beneficial pharmacological treatment and social supports, but it can also trigger negative social and psychological processes, as suggested by labeling theory. For children with mild behavioral problems, diagnosis may trigger awareness of being “different” for the first time, for example through negative teacher/peer effects. By matching diagnosed and otherwise comparable undiagnosed children from the Early Childhood Longitudinal Study-Kindergarten Cohort of 1998-1999, I find that medication has positive effects for diagnosed children with severe prediagnosis behavioral problems, yielding comparable future teacher-rated school behaviors as undiagnosed matches. However, diagnosed and medicated children with mild prediagnosis behavioral problems exhibit poorer future teacher-rated social and academic behaviors than their undiagnosed matches, consistent with labeling theory.

Pyne, Jaymes; Grodsky, Eric (2020):

### Inequality and Opportunity in a Perfect Storm of Graduate Student Debt.

In: *Sociology of Education* 93 (1), S. 20–39. DOI: 10.1177/0038040719876245.

#### Abstract:

Recent efforts to understand aggregate student loan debt have shifted the focus away from undergraduate borrowing and toward dramatically rising debt among graduate and professional students. We suggest educational debt plays a key role in social stratification by either deterring bachelor’s degree holders from disadvantaged and underrepresented backgrounds from pursuing lucrative careers through advanced degree programs or imposing a high cost for entry. We speculate that

the ongoing personal financing of advanced degrees, changes to funding in higher education, and increasing returns to and demand for postbaccalaureate degrees have created a perfect storm for those seeking degrees beyond college. We find that aggregate increases in borrowing among advanced degree students between 1996 and 2016 can be explained in part by increasing enrollment rates, particularly among master's degree students, and large, secular increases in graduate and professional students' undergraduate and graduate borrowing. In contrast to undergraduate debt alone, the burden of educational debt among graduate borrowers appears to have fallen on students from lower socioeconomic backgrounds and historically underserved students of color more so than their more advantaged counterparts and on women more so than men. However, we also find that median advanced degree wage premia over those of bachelor's degree holders are substantial for many who graduate with advanced degrees but are particularly high for African American and low socioeconomic status graduates, complicating simple conclusions about the stratification of debt at the postgraduate level.

Quadlin, Natasha (2020):

### From Major Preferences to Major Choices. Gender and Logics of Major Choice.

In: *Sociology of Education* 93 (2), S. 91–109. DOI: 10.1177/0038040719887971.

#### Abstract:

Research shows that college students choose majors for a variety of reasons. Some students are motivated by potential economic returns, others want to take engaging classes, and others still would like opportunities to help people in their jobs. But how do these preferences map onto students' actual major choices? This question is particularly intriguing in light of gender differences in fields of study, as men and women may take divergent pathways in pursuit of the same outcome. Using data from the Pathways through College Study (N = 2,639), I show that men and women choose very different majors even when they cite the same major preferences—what I call gendered logics of major choice. In addition, I use earnings data from the American Community Survey to assess how these gendered logics of major choice may be associated with broader patterns of earnings inequality. I find that among men and women who have the same major preferences, men's major choices are tied to significantly higher prospective earnings than women's major choices. This finding demonstrates that the ways men and women translate their preferences into majors are unequal from an earnings perspective. Implications for research on higher education and gender are discussed.

Rauscher, Emily (2020):

### Delayed Benefits. Effects of California School District Bond Elections on Achievement by Socioeconomic Status.

In: *Sociology of Education* 93 (2), S. 110–131. DOI: 10.1177/0038040719892577.

#### Abstract:

Contradictory evidence of the relationship between education funding and student achievement could reflect heterogeneous effects by revenue source or student characteristics. This study examines potential heterogeneous effects of a particular type of local revenue—bond funds for capital investments—on achievement by socioeconomic status. Comparing California school districts within a narrow window on either side of the cutoff of voter support required to pass a general obligation bond measure, I use dynamic regression discontinuity models to estimate effects of passing a bond on academic achievement among low- and high-socioeconomic-status (SES) students. Results consistently suggest that passing a bond increases achievement among low- but not high-SES students. However, these benefits for low-SES students are delayed and emerge six years after an election. Effects are larger in low-income districts and in small districts, where benefits of capital investments are experienced by a larger proportion of students.

Weeden, Kim A.; Gelbgiser, Dafna; Morgan, Stephen L. (2020):

### Pipeline Dreams. Occupational Plans and Gender Differences in STEM Major Persistence and Completion.

In: *Sociology of Education* 93 (4), S. 297–314. DOI: 10.1177/0038040720928484.

#### Abstract:

In the United States, women are more likely than men to enter and complete college, but they remain underrepresented among baccalaureates in science-related majors. We show that in a cohort of college entrants who graduated from high

school in 2004, men were more than twice as likely as women to complete baccalaureate degrees in science, technology, engineering, and mathematics (STEM) fields, including premed fields, and more likely to persist in STEM/biomed after entering these majors by sophomore year. Conversely, women were more than twice as likely as men to earn baccalaureates in a health field, although persistence in health was low for both genders. We show that gender gaps in high school academic achievement, self-assessed math ability, and family-work orientation are only weakly associated with gender gaps in STEM completion and persistence. Gender differences in occupational plans, by contrast, are strongly associated with gender gaps in STEM outcomes, even in models that assume plans are endogenous to academic achievement, self-assessed math ability, and family-work orientation. These results can inform efforts to mitigate gender gaps in STEM attainment.

Zapp, Mike; Lerch, Julia C. (2020):

### Imagining the World. Conceptions and Determinants of Internationalization in Higher Education Curricula Worldwide.

In: *Sociology of Education* 93 (4), S. 372–392. DOI: 10.1177/0038040720929304.

#### Abstract:

Cross-national analyses of university curricula are rare, particularly with a focus on internationalization, commonly studied as impacting higher education through the mobility of people, programs, and campuses. By contrast, we argue that university knowledge shapes globalization by producing various sociopolitical conceptions beyond the nation-state. We examine variants of such a globalized society in 442,283 study programs from 17,129 universities in 183 countries. Three variants stand out, which vary across disciplines: an interstate model (prevalent in business and political science), a regional model (in political science and law), and a global model (in development studies and natural sciences). Regression models carried out on a subset of these data indicate that internationalized curricula are more likely in business schools, in universities with international offices, in those with a large number of social science offerings, and in those with membership in international university associations. We discuss these findings and their links to changes in universities' environment, stressing the recursive relationship between globalization and higher education.

## Specials

### 2020 Reviewer Thank You.

[Acknowledgement] (2020). In: *Sociology of Education* 93 (4), S. 295–296.

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## Editorials

Goedegebuure, Leo (2020):

### Editorial.

[Editorial]. In: *Studies in Higher Education* 45 (1), S. 1–2. DOI: 10.1080/03075079.2020.1695411.

Huang, Futao; Welch, Anthony (2020):

### Introduction.

[Editorial]. In: *Studies in Higher Education* 45 (10), S. 2033–2035. DOI: 10.1080/03075079.2020.1823649.

Johinke, Rebecca; Di Lauro, Frances (2020):

### Wikipedia in higher education. Practice what you teach.

[Introduction]. In: *Studies in Higher Education* 45 (5), S. 947–949. DOI: 10.1080/03075079.2020.1763014.

Lee, Molly; Jungblut, Jens (2020):

### Foreword.

[Editorial]. In: *Studies in Higher Education* 45 (5), S. 945–946. DOI: 10.1080/03075079.2020.1763029.

Lee, Molly; Jungblut, Jens (2020):

### Foreword.

[Editorial]. In: *Studies in Higher Education* 45 (10), S. 2031–2032. DOI: 10.1080/03075079.2020.1823648.

## Original Articles

Ahn, Mi Young; Davis, Howard H. (2020):

Four domains of students' sense of belonging to university.

In: *Studies in Higher Education* 45 (3), S. 622–634. DOI: 10.1080/03075079.2018.1564902.

*Abstract:*

Students' sense of belonging is known to be strongly associated with academic achievement and a successful life at university. To achieve a comprehensive understanding of belonging, this study collected data via the 10 Words Question. Responses from 426 participants were analysed using a sequence of analytic methods including In Vivo coding, systematic coding, clustering, and contingency analysis. The results show that, in addition to academic and social engagement, there are two additional domains of belonging which are often neglected: surroundings and personal space. Surroundings equate to participants' living space, and geographical and cultural location, while personal spaces refer to life satisfaction, life attitudes, identity and personal interests. Both positive and negative data demonstrate the complex and multi-dimensional character of belonging in higher education. The study concludes that policies for student engagement in higher education should reflect all four domains to support the full range of students' experiences.

Aina, Carmen; Casalone, Giorgia; Raitano, Michele (2020):

Age at graduation and its reflections in early career prospects.

In: *Studies in Higher Education* 45 (6), S. 1121–1132. DOI: 10.1080/03075079.2019.1574733.

*Abstract:*

We analyse the association between age at tertiary graduation and outcomes of the first phase of the working career in Italy by using a rich longitudinal dataset built merging EU-SILC survey data with individual administrative records on working careers. Labour market outcomes is observed at the entry and along the 10-year period from graduation. No large differences in weekly and annual earnings and worked weeks emerge across individuals who attained the degree at different ages, thus showing a negligible direct penalisation related to graduating not at typical age in Italy. In particular, no statistically significant associations emerge as concerns the link between age at graduation and total earnings obtained during the 10 years from graduation.

Aljurf, Saladin; Kemp, Linzi J.; Williams, Paul (2020):

Exploring academic dishonesty in the Middle East. A qualitative analysis of students' perceptions.

In: *Studies in Higher Education* 45 (7), S. 1461–1473. DOI: 10.1080/03075079.2018.1564262.

*Abstract:*

Most previous studies of academic dishonesty have been conducted in North America and Europe, and have focused on the contextual, institutional, and individual factors that influence students' propensity to cheat. While such studies offer useful background and structure to this endemic problem, this study aimed to gain deeper insights into student perceptions of academic dishonesty in a multi-cultural context. Our study sample was sourced from a large private university based in the United Arab Emirates, in which there is a culturally diverse mix of national and international students (Arab and non-Arab). From our data, while a number of student perceptions were similar to those reported in other studies, several new socio-cultural themes emerged. In particular, Arab students perceived: peer student obligations; patriarchal pressure; shame avoidance; and a Fahlawi [Fahlawi – derives from 'fellahin' or quick-witted individual. This Arab cultural term references a person with a highly adaptive attitude and an ability to achieve things with minimal effort] mind-set, as being influential on their academic dishonesty attitudes and behaviours.

Altman, Yochanan; Baruch, Yehuda; Zoghbi Manrique-de-Lara, Pablo; Viera Armas, Maria Mercedes (2020):

**Baby boomers at the cusp of their academic career. Storming ahead, Hanging on, or Calling it a day.**

In: *Studies in Higher Education* 45 (7), S. 1335–1350. DOI: 10.1080/03075079.2019.1610864.

**Abstract:**

The purpose of this paper is to find out what academics do when approaching retirement, and why; as well as to reflect on the process and consequences of reaching a retirement decision – for themselves, the university system, and the wider community. Our study concentrates on baby boomers, as this large cohort starts to retire or become eligible to do so. Employing a qualitative approach grounded in an interpretive paradigm, data collection took place during 2017–2018 using semi-structured interviews with 45 Social Science Business School academics who have worked in Anglo-Saxon and Latin European universities (the USA, the UK, Spain and France). The findings suggest four core clusters of late career trajectories, with the majority wishing, and planning, to continue work. Theoretical and practical implications are discussed and suggestions for further research outlined.

Amigud, Alexander (2020):

**Cheaters on Twitter. An analysis of engagement approaches of contract cheating services.**

In: *Studies in Higher Education* 45 (3), S. 692–705. DOI: 10.1080/03075079.2018.1564258.

**Abstract:**

This paper presents the results of an exploratory study that examined engagement approaches of contract cheating services on the Twitter platform. The literature portrays the grey academic market as an invisible hand that magically delivers academic content at the click of a button, which leaves a wide gap in our understanding of their outreach efforts. To this end, data from 71 contractors and 12,701 users were analysed to describe what academics and administrators are up against. The results suggest that contractors employ automation tools to generate leads, specific to their subject area, which denotes market segmentation and competition. This study is part of a larger project aimed at minimizing academic misconduct; it discusses implications for educational practice and offers recommendations for prevention of contract cheating.

Amirkhan, James H.; Bowers, Graham K.; Logan, Christina (2020):

**Applying stress theory to higher education. Lessons from a study of first-year students.**

In: *Studies in Higher Education* 45 (11), S. 2231–2244. DOI: 10.1080/03075079.2019.1601692.

**Abstract:**

Studies of stress and coping effects on college performance have yielded inconsistent results, which might be clarified by stricter adherence to stress theories. Here, university students (n = 1212) were surveyed during their first year, said to be the most stressful. They completed measures of stress overload (the pathogenic state identified by theory) and coping preferences (the strategies most reported in the literature), and granted access to their official grade and enrollment records. Regression analyses showed stress overload to relate to poorer performance, and avoidance coping to relate to greater stress overload. SEM models indicated a theory-consistent causal sequence fit the data better than the reverse. However, after model modifications, only avoidance showed an effect on performance mediated by stress overload, as predicted, while other strategies showed direct effects. Study limitations in regard to causal inferences and generalizability, and larger problems in applying medical stress theories to academia, are discussed.

Angelone, Samer; Soriguer, Ramón C.; Melendo, Ana (2020):

**Filmmaking courses for scientists help promote richer alternatives to chronological narratives.**

In: *Studies in Higher Education* 45 (9), S. 2001–2010. DOI: 10.1080/03075079.2019.1604651.



*Abstract:*

Scientists have the tendency to communicate their scientific accounts using linearly structured narratives (Introduction, Methods, Results and Discussion; IMRAD). Likewise, the linear narrative is dominant – due to force of habit – when scientists prepare films about their research. Yet, this does not necessarily have to be the case for the new generation of scientists-as-filmmakers, who is trained to appreciate and apply alternative narrative structures. We evaluated the narrative structures of scientists from Swiss universities and research centres. Before the filmmaking courses, 94.1% of participants would use the linear narrative structure in their films, while the remaining participants would use one of the other alternative narrative types. However, after participating in the filmmaking courses, the number of potential users of the linear narrative fell almost 11-fold, and this type of narrative became the least popular. By contrast, after the courses the before-climax-backwards narrative experienced a 79-fold increase in potential use. The parallel, frame and end-backwards narratives had seven-, six- and four-fold increases, respectively. The filmmaking courses also dramatically increased the number of types of narratives that participants would consider using. Filmmaking courses for scientists help scientists-as-filmmakers make a clean break from linear narrative structures in favour of other more varied structures.

Antoniadou, Marilena; Quinlan, Kathleen M. (2020):

Thriving on challenges. How immigrant academics regulate emotional experiences during acculturation.

In: *Studies in Higher Education* 45 (1), S. 71–85. DOI: 10.1080/03075079.2018.1512567.

*Abstract:*

Transnational academic mobility is of growing importance in higher education. Yet, the acculturation for individual academics is challenging. Taking a phenomenological approach, we interviewed twenty foreign-born academics, who had been living and working in the UK for at least one year, and analysed their emotional experiences of acculturation by chronological stages. Then, using Gross's (Gross, J. J. 1998. "Antecedent-and Response-Focused Emotion Regulation: Divergent Consequences for Experience, Expression, and Physiology." *Journal of Personality and Social Psychology* 74 (1): 224–237; Gross, J. J. 2014. "Emotion Regulation: Conceptual and Empirical Foundations." In *Handbook of Emotion Regulation*, 2nd ed., edited by J. J. Gross, 3–20. New York: Guilford) model of emotion regulation, we analysed how participants used emotion regulation processes throughout their adaptation to their new environments. The study makes an original contribution firstly by applying a model of emotion regulation not previously used in researching academic life. Secondly, this study shows that, unlike stage theories, acculturation is not experienced primarily in linear stages, but as an ongoing process during which immigrant academics actively work on changing the things that challenge them. Thirdly, the findings emphasise the contributions rather than deficits of immigrant academics. Implications for supporting immigrant academics' acculturation are discussed.

Arco-Tirado, José L.; Fernández-Martín, Francisco D.; Hervás-Torres, Miriam (2020):

Evidence-based peer-tutoring program to improve students' performance at the university.

In: *Studies in Higher Education* 45 (11), S. 2190–2202. DOI: 10.1080/03075079.2019.1597038.

*Abstract:*

The purpose of this study was to demonstrate the impact of a peer-tutoring program on academic performance among first-year students. The sample consisted of 102 first-year students from four-degree programs at a Spanish University. The academic performance was measured through the official student Academic reports. The assignment of the students to the experimental group (N = 51) and control group (N = 51) was done randomly. The intervention consisted of 20 highly structured individual weekly tutoring sessions delivered by senior and doctoral students, previously trained in three training sessions. The results show moderate effects' size and statistically significant differences in favor of the experimental group in the total academic course, as well as in the fall and spring semesters.

Arias-Coello, Alicia; Simon-Martin, Jose; Gonzalo Sanchez-Molero, Jose Luis (2020):

Mission statements in Spanish universities.

In: *Studies in Higher Education* 45 (2), S. 299–311. DOI: 10.1080/03075079.2018.1512569.

*Abstract:*

The purpose of this article is to analyze the content of mission statements of Spanish public universities and explore two questions: firstly, whether missions differ according to the date they were drawn up, and second, whether their discourse reflects new public management policies proposed by the government. The study covered 47 public universities, which were divided into two groups according to their creation date: pre and post 1985. The mission statements were collected from official university websites. Results showed that universities generally prioritized teaching over research and service to society. This was more noticeable in newly created universities. Both groups of universities presented a classic management model.

Ashour, Sanaa (2020):

**How technology has shaped university students' perceptions and expectations around higher education. An exploratory study of the United Arab Emirates.**

In: *Studies in Higher Education* 45 (12), S. 2513–2525. DOI: 10.1080/03075079.2019.1617683.

*Abstract:*

Higher education institutions have a critical role to play in preparing students to meet the demands of an increasingly technological world. Drawing on a survey of 762 undergraduate students in two universities in the United Arab Emirates (UAE), this paper examines the actual experiences of digital technology of students during their academic studies while seeking to develop a better understanding of the realities that the students encounter when using technology inside and outside their classrooms. The study also investigates what students really need to enhance their learning. The collected data confirm the international research findings that the digital age is not 'transforming' the nature of university. Additionally, traditional teaching methods and conventional 'in-the-box' student thinking and practices with technology still prevail. Bearing in mind the particularities of students in the UAE context, blending technology with the formal in-person approach can produce significant benefits in relation to effectively improving student learning and success.

Azzone, Giovanni; Soncin, Mara (2020):

**Factors driving university choice. A principal component analysis on Italian institutions.**

In: *Studies in Higher Education* 45 (12), S. 2426–2438. DOI: 10.1080/03075079.2019.1612354.

*Abstract:*

When investigating students' motivations to enrol in university, a wide range of elements related to the overall student experience should be taken into account. The current study moves from this point to analyse students' choice factors from a survey completed by 27,504 students across 23 Italian institutions by means of a logistic principal component analysis. Results confirm the presence of multiple factors jointly influencing students' choice, with geographical proximity, job opportunities in the region, university reputation and ease of access opposing one another. Aggregating results at the institutional level, students' distribution proves to be highly heterogeneous across universities, which are selected for different contextual factors even within the same region. From this, a managerial tool is provided to position students' population and derive strategic implications. This increases universities' awareness and enables them to better focus on the main served population or to target a different one. Finally, policy considerations are reported.

Bäker, Agnes; Muschallik, Julia; Pull, Kerstin (2020):

**Successful mentors in academia. Are they teachers, sponsors and/or collaborators?**

In: *Studies in Higher Education* 45 (4), S. 723–735. DOI: 10.1080/03075079.2018.1544235.

*Abstract:*

Mentors in academia may act as teachers, sponsors and/or collaborators. However, so far there was no evidence on which role mentors should enact to best promote their mentees' careers. This paper focuses on mentors in academia who are not the academic advisor. We provide first evidence on the relationship between the perceived role of mentors as teachers, sponsors and/or collaborators and mentees' subsequent academic career success. Specifically, we find that mentees who perceive their mentors as sponsors who extend their social networks are most successful – in particular if they perceive

their mentors also as teachers. Further, we find that collaborating with mentors who are not their academic advisors on joint research projects has negative implications for mentees' subsequent career success.

Bamberger, Annette (2020):

Accumulating cosmopolitan and ethnic identity capital through international student mobility.

In: *Studies in Higher Education* 45 (7), S. 1367–1379. DOI: 10.1080/03075079.2019.1597037.

*Abstract:*

International student mobility (ISM), particularly degree-mobility, has been primarily portrayed as the rational pursuit of economic advantage in an increasingly competitive and stratified global hierarchy of nations, academic institutions and qualifications. This focus on what has been portrayed as the pursuit of 'cosmopolitan capital', has led to other types of capital being ignored, despite evidence that cosmopolitan capital is inadequate to explain ISM in some contexts. This study looks at ethnic identity capital as a stimulus for ISM in a group of French-Jewish students in Israel and demonstrates how it combined with cosmopolitan capital helps to explain the motivation for ISM in some culturally and ethnically distinct groups.

Barbato, Giovanni; Turri, Matteo (2020):

What do positioning paths of universities tell about the diversity of higher education systems? An exploratory study.

In: *Studies in Higher Education* 45 (9), S. 1919–1932. DOI: 10.1080/03075079.2019.1619681.

*Abstract:*

Diversity in Higher Education system has been a central topic for both scholars and policy-makers for decades. Several studies have investigated how to measure diversity and the nature of its determinants so far; however, contradictory empirical evidence has emerged. This paper contributes to this literature by adopting a methodological approach that starts from the analysis of positioning paths of Higher Education Institutions (HEIs) in order to explore the diversity of HE systems. A comprehensive quantitative analysis performed across two HE systems over time shows how detecting the positioning of HEIs can provide information that an analysis of diversity at the level of the entire system might hide, in particular (I) if and how compliant and distinctiveness are concurrently displayed (II) in which dimensions positioning shifts are more likely to occur and (III) which groups of HEIs influence more the level of diversity in a HE system.

Basgier, Christopher; Simpson, Amber (2020):

Trouble and transformation in higher education. Identifying threshold concepts through faculty narratives about teaching writing.

In: *Studies in Higher Education* 45 (9), S. 1906–1918. DOI: 10.1080/03075079.2019.1598967.

*Abstract:*

The theory of threshold concepts has given faculty a powerful way to name foundational, but difficult, disciplinary concepts. However, there is no methodological consensus about the best ways to identify them. In this article, we introduce a phenomenographically-derived narrative framework for identifying stages of threshold concept acquisition. We developed this framework through a study of faculty's conceptions of the teaching of writing situated within the normal course of disciplinary education across fields. Because of this focus, our framework has immediate application for anyone who wants to understand faculty members' thinking about the teaching of writing and help them acquire conceptions that support good pedagogy. More broadly, disciplinary faculty and researchers across higher education can use our narrative framework to identify their own or students' stages of threshold acquisition in a range of disciplines, and so adjust curricula accordingly.

Bell, Robin (2020):

**Adapting to constructivist approaches to entrepreneurship education in the Chinese classroom.**

In: *Studies in Higher Education* 45 (8), S. 1694–1710. DOI: 10.1080/03075079.2019.1655724.

**Abstract:**

Encouragement by the Chinese government for education to move from an emphasis on passive learning, rote memorisation and mechanical training towards the development and delivery of education using active, student-centred education approaches has resulted in tensions and challenges, one of which is the reaction of students previously used to traditional passive transmission learning. To study the challenges that Chinese students face when undertaking a constructivist experience-based entrepreneurship course focused on process rather than content, eight groups of business students at a Chinese university were tasked with developing projects which would add value to the university's international community. The qualitative research identified four key themes: a lack of familiarity with the constructivist learning process; group work and group dynamics; the linkage of taught content to practical activities; and the reflective process of learning in constructivist education. The findings and suggested remedies as to how these challenges can be minimised are discussed.

Bi, Henry H. (2020):

**A robust approach for assessing teaching performance during regular reviews.**

In: *Studies in Higher Education* 45 (11), S. 2217–2230. DOI: 10.1080/03075079.2019.1599850.

**Abstract:**

Although teachers at many colleges and universities receive regular performance reviews (e.g. annual reviews), there are no absolute standards regarding what teaching performance in terms of teaching evaluation ratings during the review period is satisfactory. To address this issue, in this paper we propose a new two-step approach to construct average and standard deviation charts ( $\bar{X}$ -S charts), which are based on the theory of statistical process control, for annual teaching performance reviews at a management school: first, we use the school's all historical data of teaching evaluation ratings to build  $\bar{X}$ -S charts; then, we plot each teacher's teaching evaluation ratings during the annual review period into the established  $\bar{X}$ -S charts for performance assessment. School administrators and teachers can use this generic and robust approach to identify high, normal, and low teaching performance during regular reviews for helping teachers make timely improvements or maintain good teaching performance.

Biggeri, Mario; Di Masi, Diego; Bellacicco, Rosa (2020):

**Disability and higher education. Assessing students' capabilities in two Italian universities using structured focus group discussions.**

In: *Studies in Higher Education* 45 (4), S. 909–924. DOI: 10.1080/03075079.2019.1654448.

**Abstract:**

In the last three decades, inclusive disability legislation has led to an increasing number of students with disabilities entering higher education. However, barriers to the full participation of students remain. This article presents evidence from studies conducted in two Italian universities. Drawing on the Capability Approach, the goal is to analyse the experiences of students with disabilities and to assess their capabilities in academic life. Participatory research methods were adopted using structured focus group discussion techniques. Fifty students with different types of disability participated in the study. Two major findings emerged from the data: (a) the essential value, in the experience of the students, of being able to use educational spaces, move around off campus and socialise with others; and (b) the tendency of capability achievements to vary according to context and type of disability, especially for students with visual disabilities, who experience relatively lower levels of mobility and respect.

Bobe, Belete J.; Kober, Ralph (2020):

University dean personal characteristics and use of management control systems and performance measures.

In: *Studies in Higher Education* 45 (2), S. 235–257. DOI: 10.1080/03075079.2018.1504911.

*Abstract:*

Drawing on upper echelon theory, we investigate whether university deans' personal characteristics, including age, sex, educational background, and tenure are associated with their use of university management control systems (MCS), financial performance measures, and non-financial performance measures. We surveyed the dean of every faculty across Australia's 39 public universities. Our results indicate that deans' personal characteristics are associated with the emphasis they place on financial and non-financial performance measures and the manner in which they use MCS. Given the decision-making powers of deans in the corporatised university, this differing emphasis on performance measures and varying use of MCS is likely to impact university outcomes. We offer suggestions as to how university MCS could be designed and performance measures presented to take into account the particular characteristics of deans to enhance university outcomes.

Boer, Harry de; Maassen, Peter (2020):

University governance and leadership in Continental Northwestern Europe.

In: *Studies in Higher Education* 45 (10), S. 2045–2053. DOI: 10.1080/03075079.2020.1823640.

*Abstract:*

With regard to the governance structures of European universities, changes have been proposed aimed at their democratic nature, the composition of governing bodies, the degree of centralisation in decision-making and redirecting the balance between collective and individual governing responsibilities. In this article, we address the effects of such governance reforms in public, comprehensive universities in Norway and the Netherlands. Differences across countries, even within a relatively homogeneous region such as Northwestern Europe, can be traced back to differences in underlying political visions towards university governance. After an overview of the main features of university governance structures in the two countries, we argue that a specific regional university governance practice has emerged with different combinations of executive and democratic elements.

Bordogna, Claudia M. (2020):

The development of social capital between operational academics delivering transnational collaborative programme partnerships.

In: *Studies in Higher Education* 45 (11), S. 2298–2310. DOI: 10.1080/03075079.2019.1605502.

*Abstract:*

The bonds that unite partner institutions in the delivery of shared transnational collaborative programmes are critical in the effective management of these education partnerships. A crucial component in this unification is social capital, where partners connect and develop networks, lubricated by trust, which facilitates cooperation and commitment to the venture, producing purposive and beneficial outputs. This paper explores this phenomenon by investigating the way social capital manifests between operational colleagues tasked in the delivery of collaborative joint-degree programme partnerships. Initially, the paper explores the relationship between 'partnership' and 'social capital'. It then analyses three sociological perspectives of social capital, the rational, critical and democratic strains, before examining them in relation to empirical data collected from three collaborative programme partnerships. The paper concludes there is evidence of all three strains, but advocates partner institutions observe four recommendations, so to encourage the manifestation of the beneficial critical and democratic strains.

Borlaug, Siri Brorstad; Langfeldt, Liv (2020):

One model fits all? How centres of excellence affect research organisation and practices in the humanities.

In: *Studies in Higher Education* 45 (8), S. 1746–1757. DOI: 10.1080/03075079.2019.1615044.

*Abstract:*

Centres of Excellence (CoE) have become a common research policy instrument in several OECD countries the last two decades. The CoE schemes are in general modelled on the organisational and research practices in the natural and life sciences. Compared to 'Big science', the humanities have been characterised by more individual research, flat structures, and usually less integration and coordination of research activities. In this article we ask: How does the introduction of CoEs affect the organisation of research and research practices in the humanities? By comparing Norwegian CoEs in different fields of research and studying the specific challenges of the humanities, we find that CoEs increase collaboration between different fields and make disciplinary and organisational boundaries more permeable, but so far they do not substantially alter individual collaboration patterns in the humanities CoEs. They further seem to generate more tensions in their adjacent environments compared to CoEs in other fields.

Bradbury-Jones, Caroline; Molloy, Eleanor; Clark, Maria; Ward, Nicki (2020):

Gender, sexual diversity and professional practice learning. Findings from a systematic search and review.

In: *Studies in Higher Education* 45 (8), S. 1618–1636. DOI: 10.1080/03075079.2018.1564264.

*Abstract:*

Research into higher education has shown that for those who identify as Lesbian, Gay, Bisexual, Trans\* and/or Queer (LGBTQ), universities are places where both direct and indirect discrimination is experienced. This paper reports the findings from a systematic search and review on gender and sexual diversity in professional practice placements. This was part of a broader project exploring the way that students were supported and educated to provide appropriate support for LGBTQ people using their services and whether students who identified as LGBTQ experienced specific issues regarding the (non)disclosure of their gender or sexual diversity in placement settings. Three primary themes were identified. Environment: which relates to the way that homophobic and transphobic discrimination is experienced in professional practice. Influence: the importance of faculty on the environment as both a positive and negative force. Interventions: how students support LGBTQ people who use their services and how educators intervene with students who identify as LGBTQ. Our review showed how students in all included disciplines report feeling under-prepared for the realities of working with LGBTQ people in practice. However there are examples of positive practices which can support LGBTQ students through navigating disclosure of their own identities, as well as enabling all students to act as advocates and allies for the LGBTQ service users and peers/colleagues that they will inevitably work with and alongside, throughout their careers.

Breetzke, Gregory D.; Hedding, David W. (2020):

The changing and challenging research landscape in South Africa.

In: *Studies in Higher Education* 45 (11), S. 2245–2259. DOI: 10.1080/03075079.2019.1602758.

*Abstract:*

In this paper we critically examine the research landscape in South Africa. We do this by documenting the progression and transformation of the country's National Research Foundation (NRF)-rated researchers from 2005 to 2015. Results indicate that most NRF-rated researchers in South Africa are white and male but this trend is slowly changing with black Africans increasingly becoming rated. Significantly, the data indicate a clustering at the C-rating category and a paucity of black Africans at the highest A- and B-rating category. Explanations for the results are provided and future trends are discussed in the context of the recent dramatic scale-back of the Incentive Funding for Rated Researchers Programme (IFRRP) – an NRF programme which provided guaranteed funding annually to NRF-rated researchers for the duration of their rating (usually five years). The consequences of the withdrawal of this vital funding lifeline is unpacked in the context of an increasingly competitive global research environment.

Breier, Mignonne; Herman, Chaya; Towers, Lorraine (2020):

**Doctoral rites and liminal spaces. Academics without PhDs in South Africa and Australia.**

In: *Studies in Higher Education* 45 (4), S. 834–846. DOI: 10.1080/03075079.2019.1583727.

**Abstract:**

Academics without PhDs are common in developing countries and among lecturers from marginalised communities, yet the literature on doctoral education largely ignores them. This qualitative study aimed to address that gap by interviewing academics without PhDs in South Africa and Australia. Their narratives of betwixt and betweenness contribute to theories of liminality as well as doctoral education. Liminality is traditionally conceptualised as a linear, vertical process with clear rites of passage. However, in our study, the interviewees were not only facing a vertical trajectory between non-PhD and post-PhD status but also a lateral trajectory between staff and student identity. The research confirms the importance of distinguishing between transient and permanent liminality in an occupational context. For those who had given up studying, liminality was permanent. Liminality was also affected by dynamically interconnecting factors including age, gender, race, ethnicity, relations with supervisors, time and location.

Brooks, Rachel (2020):

**Diversity and the European higher education student. Policy influencers' narratives of difference.**

In: *Studies in Higher Education* 45 (7), S. 1507–1518. DOI: 10.1080/03075079.2018.1564263.

**Abstract:**

Comparative studies of European social policy have pointed to significant differences with respect to the way in which diversity is valued and understood, contrasting nations that have adopted strongly compulsory and integrationist policies with others that have pursued more voluntary and pluralistic approaches. Within the higher education sector specifically, although there have been numerous European-level initiatives to encourage national governments to take action to widen access to university, we know relatively little about how key policy actors conceptualise diversity with respect to the student population, and the extent to which such understandings are shared across national borders. Drawing on in-depth interviews with a range of 'policy influencers' in six European countries and an analysis of relevant policy documents, this article suggests that dimensions of difference are not always valued equally and that, despite policy imperatives promoting higher education homogenisation across the continent, some significant differences between nation-states endure.

Burke, Ciaran; Scurry, Tracy; Blenkinsopp, John (2020):

**Navigating the graduate labour market. The impact of social class on student understandings of graduate careers and the graduate labour market.**

In: *Studies in Higher Education* 45 (8), S. 1711–1722. DOI: 10.1080/03075079.2019.1702014.

**Abstract:**

Significant expansions in higher education over the last few decades have raised concerns about an over-supply of graduates in the labour market, such that a degree no longer seamlessly translates into a graduate career or occupation, with the increased life chances this could bring. In this paper, we report a study of undergraduates' perceptions of graduate careers and the graduate labour market. As the data showed perceptions were shaped strongly by social class we applied a Bourdieusian theoretical lens to examine the role of capitals and hysteresis of habitus on students' expectations. The study demonstrates how the classed nature of the graduate labour market manifests itself through differences in the level of understanding and preparedness for navigating the labour market. We highlight the structural barriers 'non-traditional' graduates face when entering and navigating a volatile graduate labour market.

Butt, Akasha; Lodhi, Rab Nawaz; Shahzad, Muhammad Kashif (2020):

**Staff retention. A factor of sustainable competitive advantage in the higher education sector of Pakistan.**

In: *Studies in Higher Education* 45 (8), S. 1584–1604. DOI: 10.1080/03075079.2019.1711038.

*Abstract:*

The private higher education sector in developing countries is challenged with high turnover, which has resulted in lowered sustainable competitive advantage. The resource-based theory considers strategic resources as a vital source to achieve a competitive advantage among its competitors. We argue that staff retention is a key factor to address these issues; therefore, the impact of internal marketing strategies on staff retention is examined through a sample of 352, collected from private higher education institutes in Pakistan, using close-ended questionnaire on 5-point Likert scale. The results highlight that economic, social and reputational factors of internal marketing promote favorable employee attitude. Despite psychological contract violation, economic factor emerges as a key factor for staff retention. The results provide deep insight into higher education sector regulator as well as HR managers in private higher education universities to improve longer staff retention for sustainable competitive advantage while ensuring education quality.

Caballero, Gloria; Álvarez-González, Paula; López-Miguens, María Jesús (2020):

### How to promote the employability capital of university students? Developing and validating scales.

In: *Studies in Higher Education* 45 (12), S. 2634–2652. DOI: 10.1080/03075079.2020.1807494.

*Abstract:*

One of the challenges that today's universities face is to ensure that their graduates find employment in line with their attributes. University students' employability capital depends on many personal factors in individuals such as human capital, social capital, cultural capital and psychological capital. However, there is no consensus on how to measure employability capital, and the scales developed to date have not been properly validated. The purpose of this paper is to develop and validate, at the confirmatory level, a set of instruments for measuring the factors of employability capital of university students. We conduct three studies based on three samples of 816, 1,082, and 1,088 students. These studies show the structure of the scales resulting from checking content validity, dimensionality, and reliability, as well as convergent, discriminant, and nomological validity. Moreover, the results show that psychological capital is the most relevant of employability capital followed by social capital, cultural capital and human capital.

Cage, Eilidh; Stock, Melissa; Sharpington, Alex; Pitman, Emma; Batchelor, Rachel (2020):

### Barriers to accessing support for mental health issues at university.

In: *Studies in Higher Education* 45 (8), S. 1637–1649. DOI: 10.1080/03075079.2018.1544237.

*Abstract:*

Student mental health is an issue of great concern for universities, with rising numbers of mental health problems being reported and students reporting issues with accessing support. The current study, using a participatory research framework, investigated the possible barriers preventing students from accessing support, in terms of help-seeking intentions and actual help-seeking behaviour. Three hundred and seventy-six current UK students completed a questionnaire which measured help-seeking and possible barriers including perceived public stigma, self-stigma, educational impact, disclosure, coping behaviours and current mental health symptoms. Findings indicated that self-stigma, in particular, was a barrier to accessing support. Disclosure, educational impact, previous diagnosis, suspected diagnosis and mental health symptoms also interacted with help-seeking. These findings have implications for universities in tackling the barriers preventing students accessing support for their mental health.

Cantwell, Brendan; Taylor, Barrett J.; Johnson, Nathan M. (2020):

### Ordering the global field of academic science. Money, mission, and position.

In: *Studies in Higher Education* 45 (1), S. 18–33. DOI: 10.1080/03075079.2018.1506916.

*Abstract:*

Researchers have identified the emergence of a global field of academic science. In order to understand the dynamics of this field, this study used latent profile and regression techniques to analyze data gathered for a sample of 114 research universities from around the world. Sociological theory informed the framing and conceptualization of the study. Results demonstrated that leading research universities emphasized different areas of science, that science emphasis was



patterned by geographic region, and that region, resource levels, and science emphasis all predicted status in the field. Implications for theory and future research were discussed.

Cárdenas Moren, Camila; Crawford Augant, Kathleen; Crawford Labrin, Broderick; Soto de Giorgis, Ricardo; La Fuente-Mella, Hanns de; Peña Fritz, Álvaro et al. (2020):

**A quantitative analysis of the identification of personality traits in engineering students and their relation to academic performance.**

In: *Studies in Higher Education* 45 (7), S. 1323–1334. DOI: 10.1080/03075079.2019.1572089.

**Abstract:**

This study focuses on identifying personality traits in engineering students and testing whether they are related to academic performance. In addition, the importance of the personality construct in the educational and vocational training context was studied. A sample of 235 students from the Construction Engineering and Computer Engineering Schools of the Pontifical Catholic University of Valparaíso was used. Through correlation and econometrics analysis, the results obtained indicate that there is a relation between academic performance and the personality traits of extraversion, openness and conscientiousness. In addition, these results led to characterization of students based on their personality traits and provided elements that may enhance the development of an effective personality that allows students to successfully face their environment, playing an important role in the educational process.

Chan, Sheng-Ju; Chou, Chuang (2020):

**Who influences higher education decision-making in Taiwan? An analysis of internal stakeholders.**

In: *Studies in Higher Education* 45 (10), S. 2101–2109. DOI: 10.1080/03075079.2020.1823646.

**Abstract:**

In the past two decades, Taiwan has gone through a series of drastic higher education transformations in response to the multi-faceted demands from globalization and domestic social change. Among the driving forces, new public management and neoliberal ideology have reshaped the nature and culture of higher education in Taiwan. The current study focuses on the broader internal stakeholders' relationships to higher education policy as they systematically engage with governance through decision-making. We empirically explore who the main actors are that make decisions at the ministerial level. The study identifies six key groups with different characteristics and traits. Acting as coalitions, these groups frequently influence policy formulation. Moreover, their influential paths – identified as elite approach, professional engagement, and political networking – jointly steer higher education decision-making. These triangular paths serve as a valuable conceptual framework to understand the complicated influential paths from internal stakeholders who have affected Taiwan's higher education policy.

Chang, Dian-Fu; ChangTzeng, Hsiao-Chi (2020):

**Patterns of gender parity in the humanities and STEM programs. The trajectory under the expanded higher education system.**

In: *Studies in Higher Education* 45 (6), S. 1108–1120. DOI: 10.1080/03075079.2018.1550479.

**Abstract:**

This study considers patterns of participation according to gender in post-mass higher education from the perspective of higher education expansion in Taiwan. Becker's D coefficient (D) is used to detect the patterns of gender parity in a 'critical mass' field in higher education. The study compared participation in STEM and the humanities in terms of gender parity. ARIMA was used to build the best-fit model to project the future trends of D in both programs. The findings suggest that more females are entering higher education and that there are little gender differences in those entering STEM programs. The gender gaps shown by D in the humanities and in STEM are narrowing rapidly in both the elite and mass stage, but the gap in the universal stage shows little change. The findings provide patterns of gender parity in different programs to interpret the effect of higher education expansion.

Chatterjee, Sheshadri (2020):

**Determinants impacting diffusion of knowledge in higher learning institutes in India. An empirical study.**

In: *Studies in Higher Education* 45 (8), S. 1566–1583. DOI: 10.1080/03075079.2019.1599847.

*Abstract:*

This study explores to identify the factors and barriers influencing the diffusion of knowledge in higher learning institutes in India. Several adoption theories and models have been explored. Relevant literature has been studied in the Indian context. This has helped to conceptualize the essence of diffusion of knowledge in educational organizations. This is helpful to upgrade the intellectual capital of the society. A conceptual model has been developed. Some hypotheses have been formulated. The proposed model has been validated through regression analysis by conducting a sample survey considering 318 useable responses. The results highlight that competence of concerned stakeholders, institutional support and word of mouth positively impact on the diffusion of knowledge mechanisms. The proposed model bears 87% explanative power.

Chirikov, Igor; Shmeleva, Evgeniia; Loyalka, Prashant (2020):

**The role of faculty in reducing academic dishonesty among engineering students.**

In: *Studies in Higher Education* 45 (12), S. 2464–2480. DOI: 10.1080/03075079.2019.1616169.

*Abstract:*

University faculty are frequently tasked with promoting academic honesty among students. However, there is little reliable evidence about whether faculty actions can prevent academic dishonesty. The purpose of this study is to examine whether more severe punishments from faculty can reduce academic dishonesty among students. We analyze nationally representative, longitudinal and matched data on engineering undergraduates and faculty from 33 universities in Russia, and document extremely high and increasing rates of dishonest academic attitudes among students, especially among the higher achieving students. In the first two years of study the proportion of students tolerant to academic dishonesty increases by 5 percentage points. We then show that despite the tide of increasing academic dishonesty among students, more severe punishments from faculty significantly and substantially improve student attitudes towards academic dishonesty. Taken together, the findings emphasize the importance of strengthening the role of faculty in promoting academic honesty among students.

Christensen, Marit; Dyrstad, Jan Morten; Innstrand, Siw Tone (2020):

**Academic work engagement, resources and productivity. Empirical evidence with policy implications.**

In: *Studies in Higher Education* 45 (1), S. 86–99. DOI: 10.1080/03075079.2018.1517304.

*Abstract:*

This paper analyzes the impact of job resources on academic productivity measured by publication and credit points in 53 departments in one large Norwegian university. The theoretical framework is the so-called conservation of resources theory. The resources data came from the so-called ARK Intervention Program. The results showed that engagement and administrative and technical support for research and teaching stimulated research publications but had adverse effects on credit points from teaching, thus also contributing to the research-teaching nexus debate. To avoid adverse trade-offs between research and teaching, and to gain further positive effects on research productivity, targeted means and reward structures seem important.

Clouder, Lynn; Billot, Jennie; King, Virginia; Smith, Jan (2020):

**Friend or Foe. The complexities of being an academic and a doctoral student in the same institution.**

In: *Studies in Higher Education* 45 (9), S. 1961–1972. DOI: 10.1080/03075079.2019.1643307.

*Abstract:*

A growing expectation that academic staff in higher education institutions (HEIs) will be qualified to doctoral level can mean that doctoral study must be juggled alongside administration, teaching, and academic duties. Many academics study in their own institutions. We wished to explore their perspectives on (i) how the two roles, of being an academic as well as a doctoral candidate, interact or not and (ii) the influences and resources at play in navigating the processes. The qualitative study explored staff experiences in two HEIs in the United Kingdom and one in New Zealand. Using Cultural Historical Activity Theory (CHAT) as a theoretical framework, we identified the contradictions within and between academic life and doctoral candidature activity systems. However, we focus on the tools and rules that frame daily academic life and doctoral study, and suggest remodelling systems to be kinder to academic staff brave enough to engage in doctoral study.

Cornelisz, Ilja; van der Velden, Rolf; Wolf, Inge de; van Klaveren, Chris (2020):

### The consequences of academic dismissal for academic success.

In: *Studies in Higher Education* 45 (11), S. 2175–2189. DOI: 10.1080/03075079.2019.1596076.

*Abstract:*

Academic dismissal policies are increasingly implemented to promote academic success, with existing empirical evidence mostly restricted to short-run outcomes. This study examines long-term academic outcomes of academic dismissal for two cohorts (N=1707) of first-year bachelor students in Economics and Business at a Dutch university. Using administrative records, regression discontinuity design estimates suggest that academic dismissal does not relate to a difference in the propensity of graduation, nor to a change in study delay, when comparing students around the academic dismissal threshold. Not meeting this credit-threshold forces students to leave, and most decide to re-enroll in the same (43.4%) program elsewhere or at least within the academic domain (41.9%). Thus, while academic dismissal forces students to switch, its intended purpose of redirecting students to a different field of study is not observed. Implications for why academic dismissal might not deliver on the intended efficiency or effectiveness gains are discussed.

Corredor, Javier A.; Álvarez-Rivadulla, M. J.; Maldonado-Carreño, Carolina (2020):

### Good will hunting. Social integration of students receiving forgivable loans for college education in contexts of high inequality.

In: *Studies in Higher Education* 45 (8), S. 1664–1678. DOI: 10.1080/03075079.2019.1629410.

*Abstract:*

Scholarly community has raised concerns over the effectiveness of traditional classroom pedagogy in entrepreneurship education (EE), highlighting the need for alternative pedagogic approach. Our study explores the superiority of action learning pedagogy over traditional classroom pedagogy for EE, to overcome these challenges. The impact of both pedagogic approaches was assessed through entrepreneurial self-efficacy and entrepreneurial intention. A randomized experimental, pre-and-post-tests with control and treatment groups design was followed to accomplish the study objectives. The results affirmed that those who were exposed to action learning pedagogy (treatment group) would have significantly high level of entrepreneurial self-efficacy and entrepreneurial intention compared to those with traditional classroom pedagogy (control group). It was also found that the EE has positive influence on entrepreneurial self-efficacy and entrepreneurial intention between both the groups. The study reiterates that EE, with action learning, has a high degree of influence on entrepreneurial intention, and, hence, its importance in EE.

Cummings, Robert E. (2020):

### Writing knowledge. Wikipedia, public review, and peer review.

In: *Studies in Higher Education* 45 (5), S. 950–962. DOI: 10.1080/03075079.2020.1749791.

*Abstract:*

Two systems of knowledge production are identified and addressed by this study: peer review and public review. The peer-review system is defined, its goals are stated, its participants and their roles are identified, and its affordances are summarized. The double-blind journal submission system is examined as an example of peer review. Three enduring

challenges for peer review are identified: lack of reproducibility, costs of publication, and undue influence of sponsorship. This study also identifies and defines a new concept: public review. Similarly, the goals of public review are stated, its participants and their roles are identified, and its affordances are summarized. Wikipedia is examined as a primary example of public review. The challenges of public review reaching its goals are enumerated, with uneven development, participation, and representation identified as enduring problems. Lastly, examples of the differing features and affordances of each system recombining to achieve new results are envisioned by identifying examples projects. In conclusion, the study argues that peer review and public review should be understood and contextually applied for their relative strengths rather than criticized for failing to deliver the goals of the other.

Damianakis, Thecla; Barrett, Betty; Archer-Kuhn, Beth; Samson, Patricia L.; Matin, Sumaiya; Ahern, Christine (2020):

### Transformative learning in graduate education. Masters of social work students' experiences of personal and professional learning.

In: *Studies in Higher Education* 45 (9), S. 2011–2029. DOI: 10.1080/03075079.2019.1650735.

#### Abstract:

Transformative learning captures the process by which students engage in their learning at holistic levels (emotional, cognitive, spiritual, physical, social, and environmental) and the extent to which they experience a change in perspective, of themselves or society. This four-year, four-cohort study ( $n = 40$ ) examined the transformative learning experiences of Masters of Social Work students as they prepared to graduate and practice in their professional field. Data were collected via focus group methods and were analyzed using qualitative content analysis. Three primary themes were identified: (1) transformation is a process of feeling displaced, re-evaluating, and surfacing; (2) transformative outcomes are multidimensional and embody personal and professional learning; and (3) transformative learning is a holistic experience. This study makes a novel contribution to the literature on transformative learning by empirically examining students' experiences of transformation within accredited professional programs, and the development of pedagogical approaches that facilitate student growth within such settings.

Daumiller, Martin; Bieg, Sonja; Dickhäuser, Oliver; Dresel, Markus (2020):

### Humor in university teaching. Role of teachers' achievement goals and self-efficacy for their use of content-related humor.

In: *Studies in Higher Education* 45 (12), S. 2619–2633. DOI: 10.1080/03075079.2019.1623772.

#### Abstract:

Teachers' content-related humor matters for the quality of higher education. However, little is known about the circumstances under which teachers use it. From a socio-cognitive perspective, teachers' achievement goals and self-efficacy appear to be relevant personal precursors. We investigated their effects on content-related humor in two studies. In Study 1, 229 teachers (79 female; 159 PhDs; 33 full professors) participated with 387 courses while 10,296 students assessed the humor in these courses. Study 2 used a similar design for 45 teachers (20 female; 27 PhDs, 9 full professors), 116 course sessions, and 2,333 student assessments. Three-level-analyses pointed to substantial variance in students' assessments of content-related humor which could be attributed to differences between courses/sessions within teachers ( $ICC = .12-.13$ ) and between teachers themselves ( $ICC = .21$ ). In both studies, performance (appearance component) avoidance goals emerged as negative predictors, and relational goals and self-efficacy as positive predictors of content-related humor, highlighting the relevance of instructors' motivations for the use of instructional humor.

Dawson, Bryan L.; Cuevas, Joshua A. (2020):

### An assessment of intergroup dynamics at a multi-campus university. One university, two cultures.

In: *Studies in Higher Education* 45 (6), S. 1047–1063. DOI: 10.1080/03075079.2019.1628198.

#### Abstract:

Research on Intergroup Contact Theory has suggested that more positive environments develop when individuals have greater exposure to diverse groups, though minority students and White students often report different experiences.

Literature on higher education institutions has largely been relegated to studies on predominantly White institutions. This study was designed to address that gap by assessing the diversity climate at a large, recently consolidated multi-campus university. Comparisons were made between the two main campuses, one a predominantly White campus (PWC) and the other a more racially diverse campus (DivC). The Diverse Learning Environments survey was administered to 2582 undergraduate students to assess perceptions of diversity climate, racial harassment and campus hostility, likelihood of attrition, satisfaction with the university, and perceptions of professor effectiveness. Results indicated that experiences of harassment correlated with dissatisfaction with the campus and lower perceptions of institutional devotion to diversity, and a greater likelihood that students would choose to transfer. Campus differences in diversity climate are also explored. Views of diversity climate were correlated with perceptions of their professors' effectiveness. As more colleges across the US continue to consolidate into larger, multi-campus universities, it is essential to consider the diversity climate across campuses with varying demographics and cultures.

Dawson, David; Hepworth, John; Bugaian, Larisa; Williams, Sue (2020):

### The drivers of Higher Education leadership competence. A study of Moldovan HEI's.

In: *Studies in Higher Education* 45 (6), S. 1217–1232. DOI: 10.1080/03075079.2018.1557135.

#### Abstract:

This paper examines the qualities and skills needed by leaders and managers in Higher Education; the extent to which leaders and managers in 15 Moldovan Institutions perceive themselves to hold those qualities and skills; and the main drivers for holding higher levels of them. Review of the literature suggests that the qualities and skills examined belong to nine domains. The leaders and managers perceive themselves to be strongest on the Personal Values domain and weakest on Managing Resources. Where respondents have moved to the action stage of learning, perceive their organisation to be supportive of development, and have access to a broader range of development activities they are more likely to report higher levels of competence on the qualities and skills. The paper concludes that where institutions want to develop leadership and management capacity they need to help leaders and managers to psychologically commit to acting on their development needs.

Denovan, Andrew; Dagnall, Neil; Macaskill, Ann; Papageorgiou, Kostas (2020):

### Future time perspective, positive emotions and student engagement. A longitudinal study.

In: *Studies in Higher Education* 45 (7), S. 1533–1546. DOI: 10.1080/03075079.2019.1616168.

#### Abstract:

Student engagement is a key prognosticator of success, retention and perseverance in higher education. This study used structural equation modelling to evaluate a gain cycle of future time perspective (FTP), positive emotion and student engagement, derived from the broaden-and-build theory (BBT). A further objective was to examine changes within study variables over time. Participants were 217 UK undergraduates sampled at the beginning of the academic year, and the start of the second term. Analysis revealed that levels of positive emotion and engagement decreased, whereas FTP increased. At both time points, FTP predicted higher engagement, and engagement predicted greater positive emotion. Additionally, Time 1 positive emotion led to increased Time 2 FTP, engagement and positive emotion. This outcome was congruent with the 'build' hypothesis of BBT, suggesting that positive emotions enable the development of psychological resources. Relatedly, interventions designed to enhance FTP and positive emotion can facilitate student engagement and retention.

Di Lauro, Frances (2020):

### 'If it is not in Wikipedia, blame yourself'. Edit-a-thons as vehicles for computer supported collaborative learning in higher education.

In: *Studies in Higher Education* 45 (5), S. 1003–1014. DOI: 10.1080/03075079.2020.1750191.

#### Abstract:

This paper brings to light the notable contributions of Wikipedian Adrienne Wadewitz (1977–2014) who enlisted her peers and students to help reduce the gender imbalance by participating in mass collaborative initiatives like edit-a-thons to

increase the stock of knowledge about and of interest to women. Such projects, and the edit-a-thons that continue to be convened in Wadewitz's honour, help to reconcile the imbalance and simultaneously present pedagogical opportunities. Drawing upon scholarly literature, this paper also illustrates how Wikipedia editing supports and reinforces the principles of both academic and public writing and represents an open and sustainable platform for formative and summative assessment. Moreover, the paper emphasises the superiority of digital informative texts created by mass-collaboration and participation over those compiled by individuals or through small group collaboration, both of which delimit the homogeneity of networked knowledge.

Zou, Di; Xie, Haoran; Wang, Fu Lee; Kwan, Reggie (2020):

### Flipped learning with Wikipedia in higher education.

In: *Studies in Higher Education* 45 (5), S. 1026–1045. DOI: 10.1080/03075079.2020.1750195.

#### Abstract:

This project investigated how Wikipedia can be integrated into flipped learning in higher education through the project-based learning approach. It proposed a flipped learning model where Wikipedia was involved in creating a collaborative learning environment. Two groups of students participated in the research and were asked to complete group projects of creating Wikipedia entries, one of which learned in the flipped classroom, the other in the conventional classroom. An online collaborative learning platform, GMoodle, was developed to provide an interactive learning environment for the participants' learning with Wikipedia. The results showed that learning with Wikipedia in the flipped classroom was more effective than learning with Wikipedia in the conventional classroom. The participants in the flipped group created more versions of Wikipedia entries. The flipped learning environment provided the students with more in-class collaboration and interaction opportunities, leading to more time and space for active learning.

Díaz Ríos, Claudia; Dion, Michelle L.; Leonard, Kelsey (2020):

### Institutional logics and indigenous research sovereignty in Canada, the United States, Australia, and New Zealand.

In: *Studies in Higher Education* 45 (2), S. 403–415. DOI: 10.1080/03075079.2018.1534228.

#### Abstract:

The institutional logics of Western academic research often conflict with the epistemologies and goals of Indigenous peoples. Research sovereignty is a right but still an aspiration for many Indigenous peoples. National funding agencies and Western universities have sought to resolve these conflicts through various institutional and organizational settlements. We combined a systematic literature search with critical content analysis and synthesis to compare the prospect for Indigenous research sovereignty in Australia, Canada, the United States, and New Zealand. Our comparison of the strategies used to resolve conflicts between competing institutional logics highlights the limitations of segmentation and segregation as well as other barriers to truly blended, or reconciled, institutional logics in colonial government and Western university research institutions and organizations.

Dinov, Ivo D. (2020):

### Flipping the grant application review process.

In: *Studies in Higher Education* 45 (8), S. 1737–1745. DOI: 10.1080/03075079.2019.1628201.

#### Abstract:

The return on research investment resulting from new breakthrough scientific discoveries may be decreasing over time due to the law of diminishing returns, the relative decrease of research funding in terms of purchasing power parity, and various activities gaming the system. By altering the grant-review process, the scientific community may directly address the third problem. There is evidence that peer reviews of research proposals may lack reliability and may produce invalid or inconsistent ratings. In addition, extreme focus on grantsmanship threatens to uproot a cornerstone principle that scientific-value should be the key driver in funding decision-making. This opinion provides (1) a justification of the need to consider alternative strategies to boost the impact of public investment in innovative scientific discovery, (2) proposes a

framework for flipping the traditional front-loaded peer-review approach to allocation of research funding, into a new back-loaded assessment of scholarly return on investment, and (3) provokes the scientific community to accelerate the debate on alternative funding mechanisms, as the stakes of inaction may be very high.

Dodourova, Mariana; Clarkin, John E.; Lenkei, Balint (2020):

**The die is cast. Brexit's influence on student career intentions.**

In: *Studies in Higher Education* 45 (3), S. 648–664. DOI: 10.1080/03075079.2019.1593346.

*Abstract:*

Brexit, Britain's referendum to leave the European Union (EU), provided the backdrop for this study, although how or even if it will be implemented is uncertain. Most UK voters supported leaving the EU, yet an overwhelming majority of young people voted to remain. In an environment of economic and labor market ambiguity, we sampled 304 UK university students to examine Brexit's perceived impact on their career plans. Using Theory of Planned Behaviour, we found that students with higher internal locus of control intended to adapt career plans, although students who identified themselves as British were less proactive. Whilst most students aspired to follow a career path as an employee of a large company, nearly one third intended to become entrepreneurs, a path preferred by twice the number of males as females. Our results provide important insights for post-Brexit planning of educational policy and for businesses and labor markets throughout Europe.

Doña Toledo, Luis; Luque Martínez, Teodoro (2020):

**How loyal can a graduate ever be? The influence of motivation and employment on student loyalty.**

In: *Studies in Higher Education* 45 (2), S. 353–374. DOI: 10.1080/03075079.2018.1532987.

*Abstract:*

The Higher Education Sector is improving its relationship with graduates due to the economic, social and technological changes that affect universities. We present a consolidated model in this study of both the consequences and the antecedents of satisfaction that are determinative of the formation of loyalty in the university sector. In addition to testing the model, we evaluate the differences found in the relations between the motives given by the graduates for their choices (vocation and career paths) and their current employment situation (employed or unemployed). Grounded on the literature, we propose the conceptual model and test it with PLS supported by a sample of 805 graduates qualified in economics/business/management. The results highlight that perceived value determines image, satisfaction and loyalty, as well as the causal relation between image and both satisfaction and loyalty. Vocation determines the influence of value on satisfaction while career options produce no differences. However, employment status to a great extent conditions the perspective of the graduate. The influence of these variables has not been examined earlier in the literature. Given the competitive world of Higher Education, the conclusions may assist directors and managers of Higher Education institutions in decision-making, as well as improving graduate satisfaction and loyalty and the reputation of the university.

Dugas, Daryl; Stich, Amy E.; Harris, Lindsay N.; Summers, Kelly H. (2020):

**'I'm being pulled in too many different directions'. Academic identity tensions at regional public universities in challenging economic times.**

In: *Studies in Higher Education* 45 (2), S. 312–326. DOI: 10.1080/03075079.2018.1522625.

*Abstract:*

Faculty (N = 205) at regional public universities (RPU) in the United States were surveyed for self-reports of their primary academic identity (teacher, researcher) and qualitative descriptions of struggles related to their academic identity. Well-being and job satisfaction were examined as outcome measures of identity struggles. Participants were selected from RPUs in Illinois, a state with severe budget challenges, to assess the impact of financial pressures on academic identity at traditionally teaching-focused institutions. Responses were not uniform across faculty, with some reporting few identity struggles and others reporting difficulty managing, lack of institutional support, and feeling that something would need to 'give' eventually. Faculty who identified as researchers and who spent most of their time doing research reported the

fewest struggles, while researchers who were not able to devote time to research most frequently reported distress. Implications and challenges to faculty work and strains on academic identity at RPUs are discussed.

Fearon, Colm; van Vuuren, Wim; McLaughlin, Heather; Nachmias, Stefanos (2020):

**Graduate employability, skills development and the UK's Universities Business Challenge competition. A self-determined learning perspective.**

In: *Studies in Higher Education* 45 (6), S. 1280–1297. DOI: 10.1080/03075079.2019.1576166.

*Abstract:*

Drawing on elements of self-determined learning or heutagogy, the graduate employability impact of the UK's leading Universities Business Challenge (UBC) competition is investigated over a five year period of from 2012–17. A central research question was addressed, namely: what do inter-university business simulations, such as the UBC, contribute to developing self-determined learner skills and graduate employability? A mixed-methods research approach combined structured equation modelling (SEM) results of 2 student surveys from over 50 (UK) universities, with qualitative analysis of 7 student focus-groups and 15 semi-structured interviews. The article contributes to new knowledge about the role of UBC as an example of an inter-university business simulation. It models the direct and indirect effects of personal/managerial skills development and reflective learning capacity (as mediator) on perceived employability impact. There is fresh evidence to support the claim that reflective learning is important in the study of self-determined learning and graduate employability.

Flowerdew, Lynne (2020):

**The Academic Literacies approach to scholarly writing. A view through the lens of the ESP/Genre approach.**

In: *Studies in Higher Education* 45 (3), S. 579–591. DOI: 10.1080/03075079.2019.1576165.

*Abstract:*

I first briefly review two paradigms for scholarly writing, namely the English for Specific Purposes (ESP) and Academic Literacies (Ac Lits) approaches. ESP has traditionally been considered as the dominant paradigm and Ac Lits as somewhat on the margins of academic writing theory and practice. My aim in this article is to illustrate which areas and methodologies from ESP, especially corpus-based techniques, could usefully inform Ac Lits. The findings from corpus-based studies on the research article genre can reveal authorial voice, power relations, identity construction, as well as cross-cultural and cross-linguistic features, important issues raised in the Ac Lits literature. Corpus research has also been useful in revealing the academic values inscribed in text through recurrent lexico-grammatical patterns. Corpus linguistic techniques, at present largely absent from Ac Lits methodologies, could be considered to supplement the various ethnographic approaches associated with Ac Lits.

Fonseca, Madalena; Justino, Elsa; Amaral, Aberto (2020):

**Students' migration in a Portuguese hinterland public university.**

In: *Studies in Higher Education* 45 (6), S. 1160–1182. DOI: 10.1080/03075079.2018.1553155.

*Abstract:*

Several studies on the access to public higher education in Portugal have analysed the students' migration flows. Those studies, in general, do not consider the micro-level migration decisions of students. This study analyses the students' migration flows by fields of study or programmes, grades, social background and region of origin for a small Portuguese public university located in the hinterland, in a second-tier city. Local candidates with higher grades, tend to leave and enrol outside in a larger city. This migration flow induces a social downgrading in the region of origin. There are however counter flows of students coming from the outside to the region and that is why the university accommodates a very large segment of mobile students; this can have a high potential for the university and the city as attracting students from all over the country may change the social environment and create innovation.



Francis, Suzanne; Lewis, Janine; Fredericks, Brenton; Johnson, Belinda (2020):

Humanity, expectations, access and transformation (HEAT). Revisiting South African higher education entrance assessment in a postcolonial context.

In: *Studies in Higher Education* 45 (9), S. 1786–1796. DOI: 10.1080/03075079.2020.1793928.

*Abstract:*

Entrance assessment and standardized testing is a feature of the South African higher education landscape, with many universities using assessment and testing as benchmarking, placement or, in some instances, gatekeeping exercises. Entrance assessment practices seek to inform universities about the capabilities of students. In this paper we examine current entrance assessment paradigms and practices through our frame of humanity, expectations, access and transformation (HEAT) embedded in a broader lens of postcolonialism. We claim that current practices do not lay a foundation for meeting the larger goals of higher education – they do not transform human relationships, ignore ways of being in the world, fail to sufficiently embed learning-centred teaching, nor promote metacognitive development, self-efficacy, resilience or lead to transformation. In so doing, we contribute a new way of thinking about the transformation of higher education today and the way in which diagnostic assessment could be re-visited to meet broader goals.

Fraser, Kym; Deng, Xin; Bruno, Frank; Rashid, Tarik A. (2020):

Should academic research be relevant and useful to practitioners? The contrasting difference between three applied disciplines.

In: *Studies in Higher Education* 45 (1), S. 129–144. DOI: 10.1080/03075079.2018.1539958.

*Abstract:*

Many within and outside of academia argue that research conducted in our universities should have impact on society, especially research from the applied fields. One discipline attracting disproportional criticism over the relevance of its research is business schools. While anecdotal evidence surrounding the practical usefulness of business schools research is growing, empirical support for the problem is limited. This study explores the issue from the perspective of accounting practitioners by examining their sources of information, including the use of articles from academic accounting research journals. The issue is further examined by comparing accountants with practitioners from two other applied disciplines, engineering and medicine. A survey of 560 practitioners was undertaken and the data analysed using both descriptive and regression methods. The study found that accounting practitioners' perception of academia and use of academic research is very low, and when compared with engineers and medical practitioners, the differences were found to be statistically significant. Due to a disconnect from the real-world of practice, academic business researchers and business schools become increasingly vulnerable to adverse research funding decisions in the future.

Fraser, Stuart T. (2020):

A new frontier. Developing an undergraduate assessment task aimed at improving the representation of biomedical scientific information on Wikipedia.

In: *Studies in Higher Education* 45 (5), S. 972–983. DOI: 10.1080/03075079.2020.1749794.

*Abstract:*

The representation of scientific knowledge and information on Wikipedia is controversial. While some entries present established scientific fact, other entries are devoid of information or present information of questionable rigour. Taking this and the problems associated with essay topics as assessment tasks into consideration, an assessment task has been developed in which senior physiology or histology students edit a Wikipedia entry which is relevant to the themes in the unit of study. Students develop digital literacy skills while improving the quality of scientific information on Wikipedia. Teaching and learning resources have been developed to aid the students transition from writing in a typical 'essay style' to writing in a style appropriate to Wikipedia. The assessment task and design presented here can be readily adapted to any field of study and is designed to help academics introduce editing of Wikipedia articles into existing curricula in an efficient and effective manner.

French, Amanda (2020):

Academic writing as identity-work in higher education. Forming a 'professional writing in higher education habitus'.

In: *Studies in Higher Education* 45 (8), S. 1605–1617. DOI: 10.1080/03075079.2019.1572735.

*Abstract:*

This paper reconceptualises academic writing in HE in order to explore how the symbolic significance and practical importance of academic writing in higher education is a constant presence, despite remaining elusive and difficult to define and/or execute in practice. I apply Bourdieu's (1985) concept of 'habitus' and 'doxa' to take an 'otherwise look' at how academics gradually develop what I call a 'professional writing in higher education writing habitus' which both informs and constrains notions of professional identity in higher education. This 'professional higher education academic writing habitus' has multiple dimensions and is shaped by individuals' writing experiences both within academia (at graduate, postgraduate and post-doctoral level) and beyond. In the paper's conclusion, I argue that a greater awareness of the tacitness and complexity of practices around academic writing have clear implications for academics wishing to develop a more confident and innovative approach to their own development as academic writers.

Goodall, Helen; Khalil, Herish; Ismail, Zina Adil; Shekho, Syako Sulaiman; Majdi, Kays Sharee (2020):

Bridging cultures. A programme of academic development in the Kurdistan Region of Iraq.

In: *Studies in Higher Education* 45 (6), S. 1064–1074. DOI: 10.1080/03075079.2018.1564261.

*Abstract:*

In this paper, collaborative autoethnography is used to explore the authors' involvement as participants in and facilitator of an academic development programme that took place in the Kurdistan Region of Iraq. Recognising the significant differences in cultural origin between the Iraqi participants and its British facilitator, the authors share their reflections on the programme. Consideration is given to the implications of cultural differences in respect of the authors' expectations and experiences of this educational encounter, with particular emphasis on different approaches to learning and teaching prevailing in collectivist cultures, compared to those that are more individualist. The authors highlight the importance of early relationship-building in cross-cultural educational encounters, emphasising the two-way nature of this particular learning experience and the subsequent impact on their practice as educators.

Graham, Steven W.; Donaldson, Joe F. (2020):

Academic leaders' response to the volatility of higher education. The influence of institutional logics.

In: *Studies in Higher Education* 45 (9), S. 1864–1877. DOI: 10.1080/03075079.2019.1586867.

*Abstract:*

The purpose of this research was to articulate the pressures faced by USA higher education leaders lived experiences and the relationship to problem definition, attention focus, and strategy choice. A conceptual Model of Strategy Choice by Higher Education Leaders is proposed to capture the dynamics between exogenous pressures and problems and leaders' choice of strategy, and decision-making. The model addresses two social processes (sense-making and decision-making) associated with reproducing and altering institutional logics. The findings highlight distinctions between conventional, pre-transformative, and transformative leadership thinking and their association with different dimensions of problem definition, organizational learning, and strategy choice.

Gravett, Karen; Kinchin, Ian M.; Winstone, Naomi E. (2020):

'More than customers'. Conceptions of students as partners held by students, staff, and institutional leaders.

In: *Studies in Higher Education* 45 (12), S. 2574–2587. DOI: 10.1080/03075079.2019.1623769.

*Abstract:*

Students as partners (SaP) practices are emerging in today's universities as a means to offer a more participative agenda, and to transform institutional cultures within an increasingly economically driven higher education context. This study contributes to understandings of partnership approaches, which largely still remain under-theorised, through exploring the conceptualisation of SaP by institutional leaders, staff, and students. Drawing on data from concept map-mediated interviews, this article offers a counterview to recent studies that have depicted staff understandings of SaP to be firmly located within a neoliberal discourse. Rather, our interviews portray surprising overlaps within students' and leaders' conceptualisations of SaP, depicting recurrent themes of communication, dialogue, community, and enabling students to escape neoliberal constructions: to become 'more than customers'. This article ends with a consideration of how investigating the ways in which students and staff conceptualise SaP can be valuable, as partnership approaches become further prioritised in institutional strategies.

Grisorio, Maria Jennifer; Prota, Francesco (2020):

### Italy's national research assessment. Some unpleasant effects.

In: *Studies in Higher Education* 45 (4), S. 736–754. DOI: 10.1080/03075079.2019.1693989.

*Abstract:*

Higher education institutions are in a period of profound transformation. In particular, many governments have implemented mechanisms that attempt to relate funding to performance. In this article, we reflect about the relevance of those changes from a regional point of view, by analysing the recent introduction of a performance-based research funding system in Italy. The findings lead to policy indications, questioning the effectiveness of selective funding of universities based on national research assessment exercises when there is heterogeneity across regions in universities scientific performance and, at the same time, there is a huge dispersion of research performance within the individual universities.

Gu, Jianmin; Feng, Shujin; Huang, Futao (2020):

### How do Chinese faculty members and administrative staff participate in governance arrangements?

In: *Studies in Higher Education* 45 (10), S. 2082–2091. DOI: 10.1080/03075079.2020.1823644.

*Abstract:*

The purpose of this study is to explore Chinese faculty' participation in university governance arrangements based on solid empirical data. This study found that the Chinese faculty's participation in university governance was primarily concerned with faculty's participation in academic committees and professors' meetings at both departmental and college levels as well as faculty representatives' participation in the meeting at both the faculty and the faculty union. Furthermore, the impact of Chinese university's characteristics, the responsibilities of faculty members, and academic ranks on their participation in university governance are apparent and significant.

Guo, Yi Maggie; Klein, Barbara D.; Ro, Young K. (2020):

### On the effects of student interest, self-efficacy, and perceptions of the instructor on flow, satisfaction, and learning outcomes.

In: *Studies in Higher Education* 45 (7), S. 1413–1430. DOI: 10.1080/03075079.2019.1593348.

*Abstract:*

This paper examines the relationships between student interest, self-efficacy, and perceptions of the instructor on a set of learning outcomes that include, but are broader than, traditional measures of student learning. Consistent with the focus of positive psychology, the study focuses not only on knowledge gains but also on the flow experience and student satisfaction as important outcomes. Results show learning outcomes are affected by student interest, self-efficacy, and perceptions of the instructor.

Hailikari, Telle; Sund, Reijo; Haarala-Muhonen, Anne; Lindblom-Ylänne, Sari (2020):

Using individual study profiles of first-year students in two different disciplines to predict graduation time.

In: *Studies in Higher Education* 45 (12), S. 2604–2618. DOI: 10.1080/03075079.2019.1623771.

*Abstract:*

Despite vast research on transitioning to higher education and student diversity, little longitudinal evidence exists of how individual differences of first-year students predict their graduation times. The present study explored the relation between first-year students' study profiles and graduation times in two different disciplines, by following the same students' (N = 65) study progress for six years using student records data. Profiling students was based on student interviews. Statistical analysis of time to degree completion was conducted using event history analysis. The results revealed that first-study-year study profiles clearly predict graduation times and degree completion. Disciplinary differences existed between graduation times, which may be explained by the different structures of the disciplines. The results imply that individual students need tailored support at different phases of their studies.

Hains-Wesson, Rachael; Pollard, Vikki; Kaider, Friederika; Young, Karen (2020):

STEM academic teachers' experiences of undertaking authentic assessment-led reform. A mixed method approach.

In: *Studies in Higher Education* 45 (9), S. 1797–1808. DOI: 10.1080/03075079.2019.1593350.

*Abstract:*

A large-scale investigation was conducted at an Australian University to document and analyze authentic work-related assessment types for a university-wide major course review (Kaider, F., and R. Hains-Wesson. 2016. Enhancing Courses for Employability. Melbourne: Australian Collaborative Education Network. Report.). This study provides further insights into Science, Engineering, Technology and Mathematics (STEM) teachers' experiences in undertaking authentic assessment-led reform. STEM teachers participated in an online survey and a recorded interview to elicit their perceptions of authentic assessment-led activities. A mixed methods approach was used with two key themes emerging: (1) purpose and approach, which highlighted the importance of introducing a shared understanding for effective authentic assessment-led reform and (2) working with industry, which illustrated the requirement to provide teachers with additional support options when working with industry. In this paper, we discuss the implications of the findings along with the presentation of a set of key recommendations for supporting teachers when renewing STEM education.

Han, Jiyang; Yin, Hongbiao; Wang, Junju; Bai, Yun (2020):

Challenge job demands and job resources to university teacher well-being. The mediation of teacher efficacy.

In: *Studies in Higher Education* 45 (8), S. 1771–1785. DOI: 10.1080/03075079.2019.1594180.

*Abstract:*

This study investigated the associations between challenge job demands, job resources, emotional exhaustion and work engagement, and examined the mediation effect of teacher efficacy as a personal resource in the job demands-resources model. The results of a questionnaire survey of 2758 university teachers from 25 universities in mainland China indicated that challenge job demands were positively related to emotional exhaustion and negatively related to work engagement. Job resources were positively related to work engagement and negatively related to emotional exhaustion. Teacher efficacy mediated the effect of challenge job demands and job resources on work engagement. These results have implications for understanding different types of job demands and improving university teachers' well-being, and these implications are identified in this paper.

Händel, Marion; Wimmer, Bastian; Ziegler, Albert (2020):

**E-portfolio use and its effects on exam performance. A field study.**

In: *Studies in Higher Education* 45 (2), S. 258–270. DOI: 10.1080/03075079.2018.1510388.

*Abstract:*

The current field study investigated the weekly use of a reflective electronic (e-)portfolio by 1469 higher education students throughout a term and its effect on exam performance. Students' use of the e-portfolio elements as well as their self-reported use of several learning strategies were documented during a 9-week period. Regression analyses showed that over and above the continuous use and the weekly time spent on the e-portfolio, the reported use of cognitive strategies was a significant predictor for exam grade. Finally, students who used the e-portfolio outperformed their peers without e-portfolio use on the final exam. We discuss results with regard to future implementation and training of the e-portfolio use.

Harrison, Neil (2020):

**Patterns of participation in higher education for care-experienced students in England. Why has there not been more progress?**

In: *Studies in Higher Education* 45 (9), S. 1986–2000. DOI: 10.1080/03075079.2019.1582014.

*Abstract:*

Children who spend time in the care of their local authority, usually due to neglect or abuse within the birth family, tend to experience significant educational disruption and have lower educational outcomes, on average, than other young people. However, little is known about those subsequently participating in higher education, who comprise just under one percent of the student body in England.

The paper synthesises three contrasting datasets to map participation patterns among care-experienced young people for the first time. Considerably more enter higher education than previously thought, but they remain significantly less likely to participate than other young people. Furthermore, they tend to enter later, with less prestigious qualifications and to lower status institutions.

The paper concludes by discussing key differences between the datasets, reflecting on difficulties with identifying and recording care-experienced students which may account for an apparent lack of progress in encouraging their participation despite concerted policy efforts.

Hauser, Alexandra; Weisweiler, Silke; Frey, Dieter (2020):

**Because 'happy sheets' are not enough. A meta-analytical evaluation of a personnel development program in academia.**

In: *Studies in Higher Education* 45 (1), S. 55–70. DOI: 10.1080/03075079.2018.1509306.

*Abstract:*

Although the high costs of implementing personnel development programs in enterprises and increasingly in universities as well are commonly accepted, the scientifically-grounded evaluation of a program's effectiveness is often neglected. The aim of this paper was to evaluate a personnel development program for academics at a German university (N=1426). We investigated the program's effectiveness on Kirkpatrick's four levels. We examined short- and long-term effects with a repeated measurements design. In sum, 123 training programs were clustered into 26 primary studies. We conducted t-tests and aggregated the effect sizes (d) using meta-analytical techniques. We found a high short-term effect and a moderate to high long-term effect for the learning level, and a small to moderate long-term effect for the behavior level. Participants' organizational commitment did not increase. Our results have appealing practical implications for university HR managers, trainers, and evaluators.

Heinz, Jana; Maasen, Sabine (2020):

Co-producing the European higher education area. The (somewhat overlooked) role of the social sciences.

In: *Studies in Higher Education* 45 (8), S. 1758–1770. DOI: 10.1080/03075079.2019.1617684.

*Abstract:*

While comprehensive research has been conducted on the Bologna Process (BP) as well as on the European Higher Education Area (EHEA), the roles of the social sciences in these reforms have remained mostly overlooked. Based on a systematic literature review of articles and reports from 1999 to 2018, we analyse the interplay of social sciences with politics in the creation of the EHEA, employing the theoretical concepts of co-production of knowledge, boundary objects as well as invited and uninvited participation. We argue that in order for a highly abstract and global concept such as the BP to become so pervasive, it requires that efforts be made to make sense of it in different local contexts. We see this done by representatives of national and European policy, who explicitly and implicitly interact with different stakeholders in the social sciences.

Héliot, YingFei; Mittelmeier, Jenna; Rienties, Bart (2020):

Developing learning relationships in intercultural and multi-disciplinary environments. A mixed method investigation of management students' experiences.

In: *Studies in Higher Education* 45 (11), S. 2356–2370. DOI: 10.1080/03075079.2019.1610865.

*Abstract:*

In this article, we suggest that competencies in working in intercultural and multidisciplinary environments are part of expected key skills in contemporary organisations. Higher educational institutions across the globe are pressured to contribute to the development of such key skills. Using social identity theory, through social network analysis of 113 postgraduate management students in one UK business school and follow-up focus group interviews (N = 16), we have identified three types of learners: Co-National Learners, Bridge-Building Learners, and Cross-National Learners. We argue that developing learning relationships in intercultural and multidisciplinary environments needs to go beyond a cultural-only approach, and the understanding of identity has an important place.

Hemmati, Reza; Mahdie, Arefeh (2020):

Iranian PhD students' experiences of their learning environment and scholarly condition. A grounded theory study.

In: *Studies in Higher Education* 45 (1), S. 187–208. DOI: 10.1080/03075079.2019.1576164.

*Abstract:*

An academic learning environment has a significant role in shaping students' learning experience, scholarly identity construction, and socialization into academic culture. The aim of the present study was to understand the experiences of PhD students from their learning environment and the challenges and problems they may face. This case study was conducted within the framework of a qualitative approach by using grounded theory. Data were collected by semi-structured interviews with thirty-one PhD student and nine faculty members from one of the public and comprehensive universities in Iran. The study provides insights into doctoral education by shedding light on the challenges and struggles that students experience in their journey and learning environment. The results indicated that in spite of the practical necessities of life and the serious challenges in the learning environment, for PhD students, having a student identity and being a student still valuable. Thus they tried to deal with this situation with different strategies. Each of these strategies had different implications for their future trajectories and the other hand for the future of the higher system. Implications for policy, practice, and further research are discussed.

Hextrum, Kirsten (2020):

**Individualizing conflict. How ideology enables college athletes' educational compromises.**

In: *Studies in Higher Education* 45 (4), S. 755–767. DOI: 10.1080/03075079.2018.1554639.

**Abstract:**

This article explores how the ideology of individualism sustains a conflictual school/sport intercollegiate system within the neoliberalism university [Giroux, Henry A. 2014. *Neoliberalism's War Against Higher Education*. Chicago: Haymarket Press]. Life-history interview with 47 U.S. collegiate athletes reveal how institutional conditions cultivated an individualistic subjectivity [Althusser, Louis. 1971. *Lenin and Philosophy and Others Essays*. New York: Monthly Review Press] that led participants to internalize school/sport conflict and alter their behavior rather than to externalize conflict and alter the institution. Upon entering University, athletes named the institutional challenges created through combining elite athletics and academics. Rather than identifying structural solutions to conflicts, athletes' interactions within a neoliberal university codified an individualistic subjectivity in which participants internalized institutional conflict as something they must singularly defeat. Athletes then mitigated the conflict by compromising their educational ambitions. By individualizing conflict, higher education remained insulated from meaningful change. Findings demonstrate why future reform platforms must encompass broad institutional change alongside an ideological critique to temper the reproduction of an incompatible educational and athletic system.

Hildesheim, Christine; Sonntag, Karlheinz (2020):

**The Quality Culture Inventory. A comprehensive approach towards measuring quality culture in higher education.**

In: *Studies in Higher Education* 45 (4), S. 892–908. DOI: 10.1080/03075079.2019.1672639.

**Abstract:**

Quality assurance and quality development represent central challenges of higher education institutions (HEIs). In this context, the term quality culture has gained increasing attention. Quality culture refers to an organizational culture, which emphasizes the importance of continuous quality improvement, shared attitudes, and commitment towards quality. Despite growing discussion of quality culture, sound empirical approaches that capture this key construct have not been developed systematically. Therefore, we developed the 'Quality Culture Inventory' (QCI), which represents a comprehensive approach to operationalizing quality culture in HEIs. In a first step, this paper summarizes the development and empirical validation of the QCI, which comprises six dimensions (e.g. quality-oriented commitment, leadership, and communication). In a second step, relationships between the QCI dimensions and several potential outcome measures (e.g. job satisfaction) are reported. The QCI allows HEIs to evaluate their current state of quality culture based on empirical evidence and develop target-oriented recommendations for quality improvement.

Hill, Sophie (2020):

**The difference between troublesome knowledge and threshold concepts.**

In: *Studies in Higher Education* 45 (3), S. 665–676. DOI: 10.1080/03075079.2019.1619679.

**Abstract:**

It has been stated that a criterion of a threshold concept is that it is troublesome or difficult to understand. However, not all difficult concepts are also threshold concepts. This article explores this difference through the context of students' difficulties in learning prosthetics and two models of describing threshold concepts. Students and staff at two UK universities teaching prosthetics and orthotics participated in interviews and questionnaires. Data were analysed using an interpretative phenomenological analysis approach. Five themes of difficulty emerged from the data, two of which were difficult concepts and three of which were difficult and threshold concepts. These themes involved issues with numbers, the human body, disciplinary language, gait and a holistic perspective. The differentiation was that threshold concepts involved both conceptual and ontological transformation and the use of procedural concepts with associated memories in order to develop disciplinary ways of viewing a concept.

Holtfreter, Kristy; Reisig, Michael D.; Pratt, Travis C.; Mays, Ryan D. (2020):

The perceived causes of research misconduct among faculty members in the natural, social, and applied sciences.

In: *Studies in Higher Education* 45 (11), S. 2162–2174. DOI: 10.1080/03075079.2019.1593352.

*Abstract:*

Little research has investigated the conditions that lead to research misconduct. To develop effective intervention/prevention strategies, this void must be filled. This study administered a mixed-mode survey (i.e. mail and online) to a stratified random sample of tenured and tenure-track faculty in the natural, social, and applied sciences (N = 613) during the 2016–17 academic year. The sample includes scholars from 100 universities in the United States. Participants were asked about the extent to which they believe a variety of known criminogenic factors contribute to research misconduct in their field. Descriptive results show that professional strains and stressors (e.g. pressure to secure external funds and publish in top-tier journals) are most widely perceived to cause misconduct, followed by the low probability of detecting misbehavior. Results from the MANOVA model show that this pattern of perceived causes remains the same for scholars across scientific fields. Implications for future research are discussed.

Hong, Min (2020):

A comparative study of the internationalization of higher education policy in Australia and China (2008–2015).

In: *Studies in Higher Education* 45 (4), S. 768–779. DOI: 10.1080/03075079.2018.1553154.

*Abstract:*

In an era of globalization, internationalization of higher education (IHE) has been constructed as an almost inevitable trend and has become a common pursuit of many nations in their higher education (HE) policies. This study focuses on two nations, China and Australia, in terms of this trend. The broadest aim of this research was to find out the interactive relationships between global and national pressures in policy development by comparing the international HE policies in China and Australia, for the period 2008–2015. Based on selected policies, Similarities and differences in the three categories, overarching meta-policies at the macro level (nation), institution focused policies at the meso level (universities), and people focused policies at the micro level (individuals) are identified in this study. It is suggested that different responses to the global trends reflect the specificities of each nation and the ways path dependent factors mediate global pressures. This comparison will facilitate better understanding of how globalization has affected and been responded to in IHE policies, and enable better understanding of their path dependent mediation through a focus on two specific sets of national policies.

Horta, Hugo; Santos, João M. (2020):

Organisational factors and academic research agendas. An analysis of academics in the social sciences.

In: *Studies in Higher Education* 45 (12), S. 2382–2397. DOI: 10.1080/03075079.2019.1612351.

*Abstract:*

The demands for academic research placed on contemporary universities are closely related to the levels of innovative research they are expected to produce. Concurrently, both governments and university management strive to make the production of academic research more cost-efficient and have implemented measures to ensure this. Top-down policies influenced by the concepts of new public management and managerialism have been introduced, pushing for competitiveness and increased performativity in academic research setups. These policies and guidelines have been criticised by academics as having eroded collegiality and autonomy, which are considered necessary to achieve quality research. The focus of this study is on the social sciences and aligns with this critique, demonstrating that autonomy and collegiality are the key organisational features fostering multidisciplinary, collaborative and riskier research agendas that lead to breakthroughs. Academics with high levels of organisational commitment are more likely to create research agendas that assume more conservative, discipline-bound and risk-averse traits, with less potential to achieve the intended innovative research outcomes.



Hoxha, Visar; Haugen, Tore; Bjørberg, Svein; Salaj, Alenka Temeljotov (2020):

**Developing sustainable energy efficient buildings. A transnational knowledge transfer experience between Norway and Kosovo.**

In: *Studies in Higher Education* 45 (2), S. 390–402. DOI: 10.1080/03075079.2018.1534094.

*Abstract:*

The present study investigates the knowledge transfer (KT) processes from Norwegian University of Science and Technology to College ESLG in Kosovo. An inter-organisational knowledge of transfer theoretical framework from the business sector was applied to guide the present study. The data was generated through semi-structured interviews with key university officers, professors, and students in continuous education programmes from College ESLG and documentary evidence analysis from two partner universities. Based on the thematic analysis of the data, the findings demonstrated that the curriculum mapping process, joint lectures between Norwegian and Kosovar professors, joint research, and joint study visits facilitated the KT. While the transfer of knowledge most evidently resulted in institutional capacity development for the Kosovar College unit, the dissemination of knowledge to other units within the college was more challenging due to communication problems between the Real Estate Department and other units within the college.

Huang, Futao; Daizen, Tsukasa; Kim, Yangson (2020):

**Changes in Japanese universities governance arrangements 1992–2017.**

In: *Studies in Higher Education* 45 (10), S. 2063–2072. DOI: 10.1080/03075079.2020.1823642.

*Abstract:*

Based on two national surveys of Japanese faculty members, the purpose of this study is to analyze whether changes had occurred in key aspects of governance arrangements in both national and private universities in Japan from 1992 to 2017. This study focuses on the changing relationships between national universities and the central government and the internal governance and management style at institutional level, due to the application of new public management theory and market mechanisms to universities in Japan. The main findings show: (1) the changing trends of governance arrangements in Japanese universities did not seem to be more managerially-oriented and centralized in general between 1992 and 2017; (2) actual changes did not occur in some aspects of governance arrangements in Japanese universities; (3) changes in governance arrangements in private universities present a sharp contrast to those occurring in national universities. This research has important implications that the current governance patterns in Japanese universities should be improved, and top administrators should provide more competent leadership.

Hunt, Wil; Scott, Peter (2020):

**Paid and unpaid graduate internships. Prevalence, quality and motivations at six months after graduation.**

In: *Studies in Higher Education* 45 (2), S. 464–476. DOI: 10.1080/03075079.2018.1541450.

*Abstract:*

Secondary analysis of the UK's 2011/12 Destinations of Leavers from Higher Education survey reveals that many existing assumptions about graduate internships are questionable. This article proposes a reliable way of estimating the true extent of internships including those reported as 'voluntary' jobs: hidden internships. In doing so the article finds: 1) At six months after graduation, internships are a small feature of the UK graduate labour market, but significant in certain sectors; 2) Unpaid internships are much more prevalent than previously estimated, especially in these same sectors; and 3) Contrary to some public policy debate, unpaid internships appear, on balance, to be a residual option more likely to lead to underemployment and less favourable career development outcomes. Post-graduation internships appear less likely than pre-graduation work experiences to confer long-term employability advantages.

Icekson, Tamar; Kaplan, Oren; Slobodin, Ortal (2020):

### Does optimism predict academic performance? Exploring the moderating roles of conscientiousness and gender.

In: *Studies in Higher Education* 45 (3), S. 635–647. DOI: 10.1080/03075079.2018.1564257.

#### Abstract:

Although optimistic expectations often enhance students' academic performance, they may also lead to academic failure if they are associated with unrealistic convictions of success. The present longitudinal study examined the moderating effects of personality factor conscientiousness and gender on the relationship between dispositional optimism and academic performance. The levels of dispositional optimism and conscientiousness in 175 undergraduate students (123 women, 52 men) were assessed as predictors of their average academic score at the subsequent semester. Multiple hierarchical regressions affirmed the moderating effects of conscientiousness and gender on the relationship between dispositional optimism and academic performance. Post-hoc probing of the interactions showed that high dispositional optimism increased academic performance in women with high conscientiousness but had adverse effects on academic performance of men with low conscientiousness. These findings suggest that high conscientiousness may regulate the adverse effects of high optimism, such as unrealistic expectations and over-confidence.

Iglesias, Víctor; Entrialgo, Montserrat; Müller, Frank (2020):

### Supply-side Antecedents of dropout rates in MBA programs.

In: *Studies in Higher Education* 45 (9), S. 1848–1863. DOI: 10.1080/03075079.2020.1723521.

#### Abstract:

The purpose of this paper is to carry out an empirical examination of the supply-side factors influencing dropout rates in MBA programs. We analyze the extent to which the resources and characteristics of the program (content, teaching methodology, course load, class size, partnerships, reputation) influence these rates. A GLM analysis was conducted on data obtained from a final sample of 94 executive MBA programs in Western Europe. The results indicate that several supply side factors significantly affect dropout: intensity of case study learning, number of credits per month, class size, and proportion of lessons given at partner institutions. Several implications for the design and management of higher education programs have been drawn from this research.

Iriondo, Iñaki (2020):

### Evaluation of the impact of Erasmus study mobility on salaries and employment of recent graduates in Spain.

In: *Studies in Higher Education* 45 (4), S. 925–943. DOI: 10.1080/03075079.2019.1582011.

#### Abstract:

Little empirical literature assessing the impact of Erasmus study program on graduate career prospects exists. All too often, the empirical evidence available is either bias or indirect. Furthermore, the existing differences among study mobility participants and non-participant peers in terms of ability, socioeconomic background or field of study are often ignored, leading us to believe that the correlations observed to date cannot be considered as causal. In an attempt to obtain less biased evidence on the effect of Erasmus study mobility on career and salary prospects, a propensity score matching approach was used. As far as we are aware, no other studies involving this approach have been carried out in Spain. Our objective therefore was to contribute to the knowledge available through the analysis of two graduate surveys. The main conclusion reached was that in the medium term, Erasmus programs do in effect have a positive impact on the prospects of recent graduates, who in terms of income were able to command salaries that were 10–12 per cent higher than their counterparts.

Janke, Stefan (2020):

**Prospective effects of motivation for enrollment on well-being and motivation at university.**

In: *Studies in Higher Education* 45 (12), S. 2413–2425. DOI: 10.1080/03075079.2019.1612353.

**Abstract:**

Enrollment at university can be based on personal interests (intrinsically motivated) as well as financial prospects (extrinsically motivated). I investigate whether and how these qualities of motivation for enrollment influence achievement motivation and well-being of university students at the beginning of their studies. Thereby, I relied on data from a longitudinal study in which university freshmen were questioned at the beginning and end of their first academic year. The results of the study indicate that intrinsic motivation for enrollment facilitates the development of a learning goal orientation and retrospective satisfaction with choice of major. Extrinsic motivation for enrollment was related to impaired study satisfaction over time and enhanced thoughts about dropout. These prospective effects were robust when controlling for initial individual differences in achievement goal orientations, life satisfaction, and GPA. The presented research provides new insights regarding how educational decisions affect achievement motivation and well-being in educational contexts over time.

Jensen, Lise; Price, Linda; Roxå, Torgny (2020):

**Seeing through the eyes of a teacher. Differences in perceptions of HE teaching in face-to-face and digital contexts.**

In: *Studies in Higher Education* 45 (6), S. 1149–1159. DOI: 10.1080/03075079.2019.1688280.

**Abstract:**

Studies of how contextual factors influence teachers' approaches to teaching have chiefly focused on face-to-face teaching in physical campus contexts. This study advances understanding of how applicable this knowledge is in digital contexts. The study explores how university teachers perceive the differences between teaching in physical campus contexts and the digital teaching contexts found in online courses. Interview data were collected from 15 university teachers and analysed using thematic analysis. The results show that respondents perceived digital teaching contexts to be changeable. Changes were attributed to technology development and influences from students and teachers. The respondents varied in how close or anonymous they perceived their online students to be compared to their campus students. The variation was related to the type of teaching-learning activities prioritised by the respondents. However, no relationships were found between respondents' perceptions of their student-teacher relationship and class size, time invested, or type of communication.

Johinke, Rebecca (2020):

**Social production as authentic assessment. Wikipedia, digital writing, and hope labour.**

In: *Studies in Higher Education* 45 (5), S. 1015–1025. DOI: 10.1080/03075079.2020.1750192.

**Abstract:**

This paper locates digital social production (or unpaid participation on the Web) within a broader discussion about demonstrating job readiness in a wired world. It does not assume that the recruitment marketplace is a level playing field for graduates. Nor does it assume that a single additional graduate attribute, in the form of contributing to Wikipedia, will guarantee employment. However, it makes a case that digital social production as a graduate attribute could be positioned within the body of scholarly literature that is emerging about the merits of using Wikipedia in the higher education classroom. If fewer opportunities exist for work placement and institutionally-organised internships for students taking non-vocational more generalist degrees, then students and educators must be more creative about the kinds of authentic assessment tasks and extra-curriculum activities that are on offer to shape a narrative of employability for graduates. A case is made that, following Deuze (2007), a 'networked reputation' has value in an ethical economy but potentially it could also have value in the graduate recruitment marketplace. Following Kuehn and Corrigan (2013), this paper makes a case that volunteering one's time in an unpaid internship or editing Wikipedia entries online could be categorised as 'hope labour'.

Johnson, Steve; Orr, Kevin (2020):

What is business school research for? Academic and stakeholder perspectives, politics and relationality.

In: *Studies in Higher Education* 45 (3), S. 557–578. DOI: 10.1080/03075079.2018.1564901.

*Abstract:*

Through an empirically grounded analysis of contested interpretations of impact held by business school academics and wider stakeholders, we provide a political and relational understanding of research impact whereby impacts are realized through situated, relational and ongoing interactions. Our qualitative study of three UK business and management schools, comprising interviews with around 70 researchers, academic leaders and stakeholders explores conceptualizations of impact, examines the processes through which impact is achieved and considers the influence of the Research Excellence Framework (REF). The inclusion of academic leaders and business stakeholders adds value to studies that have focused primarily on academic researchers. We present a nuanced picture of the ways in which academics and business stakeholders conceptualize impact and navigate the complexity of roles and relationships in this arena. Implications for practice include the desirability of embracing different understandings of impact, creating space for generative dialogue and incorporating impact more explicitly in teaching and learning.

Jonbekova, Dilrabo (2020):

The diploma disease in Central Asia. Students' views about purpose of university education in Kazakhstan and Tajikistan.

In: *Studies in Higher Education* 45 (6), S. 1183–1196. DOI: 10.1080/03075079.2019.1628199.

*Abstract:*

This paper examines students' views about the purpose of university education and its role in their future employability in Kazakhstan and Tajikistan. Data was gathered through focus groups with 172 undergraduate students. Findings suggest that due to socio-economic pressures, students largely see the purpose of university in terms of its economic value, namely enhanced access to employment opportunities and improved financial wellbeing. While future career prospects are key motivation to pursue a university degree, this study shows that the perceived role of university credentials in employability is declining. Due to an oversupply of graduates and limited employment opportunities, employers have raised the bar for qualifications to select job candidates. Coupled with an undergraduate degree perceived as an 'incomplete degree', students are driven to earn more educational credentials; leading to a greater supply of graduates and what appears to be a widespread occurrence of 'diploma disease'.

Jones, David R.; Patton, Dean (2020):

An academic challenge to the entrepreneurial university. The spatial power of the 'Slow Swimming Club'.

In: *Studies in Higher Education* 45 (2), S. 375–389. DOI: 10.1080/03075079.2018.1534093.

*Abstract:*

The entrepreneurial university is a vague notion that has evolved by applying the concepts of enterprise and entrepreneurship to a university context. The blurring of enterprise with entrepreneurship has allowed the entrepreneurial university to be increasingly underpinned by a managerialist discourse, typified by functionalisation and marketisation; culminating in academic disempowerment, dissatisfaction and subsequent disengagement. In response to such dissatisfaction, this paper reflects on a playful space, called the Slow Swimming Club (SSC), produced by several academics. The research takes a collective auto-ethnographic approach and employs Foucault's heterotopology, as a conceptual frame, to understand the collective impact of this SSC entrepreneuring space. We relate the disconnection of the SSC to the process of critically connecting academics, back to their universities and consider whether such academic resistance, rooted in play, corporeal sensibility and emancipation, has the potential to enact social change and enhance entrepreneurial potential.

Joseph-Richard, Paul; Jessop, Tansy (2020):

**A phenomenographic study of research informed teaching through the eyes of Masters' students.**

In: *Studies in Higher Education* 45 (4), S. 847–861. DOI: 10.1080/03075079.2018.1554640.

**Abstract:**

There has been a revival of interest in the relationship between research and teaching and its impact on student learning. Most studies have focused on the experience of research informed teaching (RIT) for undergraduate students, usually from teachers' perspective. Here we explored the experience of 25 Masters' students on a Management degree in a business school using phenomenography. We identified five different conceptions of RIT: the transmitter focuses on RIT as spreading research signals to students; the detective foregrounds methods of inquiry; the catalyst emphasises teaching impacts; the agent focuses on students taking ownership for self-directed learning; and the wayfarer engages students in a lifelong journey which shifts students' ways of thinking about knowledge. Our findings challenge academics to go beyond limited functional conceptions of RIT so that confidence to embrace the idea that knowledge is provisional, and commitment to lifelong exploration and impactful learning are developed in students.

Jungblut, Jens; Vukasovic, Martina; Steinhardt, Isabel (2020):

**Higher education policy dynamics in turbulent times. Access to higher education for refugees in Europe.**

In: *Studies in Higher Education* 45 (2), S. 327–338. DOI: 10.1080/03075079.2018.1525697.

**Abstract:**

Apart from teaching, research and service to society, since 2015 higher education systems and institutions in Europe have faced an additional expectation – to respond to the largely unexpected yet nevertheless growing demand for higher education by refugees. This study explores system and organizational level responses to such environmental pressures in Germany and Flanders, both affluent systems, but different in terms of size, attractiveness as destination and the extent to which their languages are widely spoken. Relying primarily on document analysis and interviews, the study highlights three elements of policy dynamics: policy styles, main drivers, and extent of involvement of non-state actors. While, as expected, in both systems the dynamics were re-active, solution-driven, and with strong involvement of non-state actors, contrary to expectations both countries responded primarily in a bottom-up manner. The study provides a conceptual tool and a first empirical insight into this novel phenomenon.

Katartzi, Eugenia; Hayward, Geoff (2020):

**Transitions to higher education. The case of students with vocational background.**

In: *Studies in Higher Education* 45 (12), S. 2371–2381. DOI: 10.1080/03075079.2019.1610866.

**Abstract:**

The paper examines the ways transitions to Higher Education are experienced and narrated by students with Vocational qualifications. Drawing upon the mixed-method project that documented transitions to HE, we utilise interview data to illustrate the centrality of the epistemic and pedagogical struggles that students with vocational background experience. More specifically, a process of differential epistemic positioning is evident in the participants' narratives. This manifests itself through a misrecognition of their worth in the field of HE. Further, pedagogical struggles were also narrated by the participants in relation to the teaching, learning and assessment regimes prevailing in HEIs. The paper concludes by arguing for the need to revisit the narrow and static policy framing that emphasises barriers to access. This requires addressing questions pertaining to pedagogy and knowledge, students' completion and retention rates and their ongoing engagement with the epistemic and pedagogical processes once they are within HE.

Kuznetsova, Olga; Kuznetsov, Andrei (2020):

And then there were none. What a UCU archive tells us about employee relations in marketising universities.

In: *Studies in Higher Education* 45 (12), S. 2439–2450. DOI: 10.1080/03075079.2019.1615045.

*Abstract:*

Our study engages evidence from a University and College Union branch archive to explore developments in employee relations (ER) that reflect the organisational effects of marketisation of UK universities. The evidence exposes points of strain in ER at a level of professional divide between managers and academics, and helps to understand their roots in the context of universities as organisational hybrids. Our investigation reveals the failure of ER to adapt to increasingly conflict-ridden working environments and encourages a different, sustainability-centred, approach to constructing ER in universities in an attempt to coordinate more effectively the clashing institutional logics.

Lavigne, Eric (2020):

The demographics and career paths of Canadian university deans. Gender, race, experience, and provenance.

In: *Studies in Higher Education* 45 (9), S. 1949–1960. DOI: 10.1080/03075079.2019.1612350.

*Abstract:*

This article reports on a study of 384 decanal appointments and reappointments and examines Canadian university deans' demographics and career paths. The study focused on four variables: gender, race, experience, and provenance; and analyzed variations across faculty and university types. The findings show that the great majority of Canadian university deans possess a Canadian background, with half of them being recruited internally, and that proportions of non-White and female deans mostly align with those of the professoriate. However, the study reveals a pattern of upward cumulative attrition suggesting that structural barriers to success, perseverance, and promotion are shaping non-White and female deans' career paths. Finally, data suggest that about 40% of Canadian university deans are reappointed for a second term.

Le, Tri D.; Robinson, Linda J.; Dobeles, Angela R. (2020):

Understanding high school students use of choice factors and word-of-mouth information sources in university selection.

In: *Studies in Higher Education* 45 (4), S. 808–818. DOI: 10.1080/03075079.2018.1564259.

*Abstract:*

University choice is a high-risk decision for prospective students which requires substantial effort to evaluate a range of choice factors. Understanding this complex process is a crucial task for higher education marketers. Of particular importance are the differences across market segments. This study analyses the importance of choice factors, and the usage of information sources, across domestic/international segments and cross-country segments, and explores which choice factors are delivered via word-of-mouth information sources. Different from previous studies which collected data in the countries of destination, this study employs a data sample of prospective students from the country of origin of Vietnam, an emerging market of international education. The findings provide insight into the key choice factors and information sources by market segment. Future job prospects, teaching quality, staff expertise, and course content were important choice factors across all market segments. Parents are the most influential information source for Vietnamese students.

Lechuga Sancho, María Paula; Martín-Navarro, Alicia; Ramos-Rodríguez, Antonio Rafael (2020):

Will they end up doing what they like? The moderating role of the attitude towards entrepreneurship in the formation of entrepreneurial intentions.

In: *Studies in Higher Education* 45 (2), S. 416–433. DOI: 10.1080/03075079.2018.1539959.

*Abstract:*

When studying entrepreneur's intentions, researchers have mainly relied on the theory of planned behaviour model developed by Ajzen (1991. "The Theory of Planned Behavior." *Organizational Behavior and Human Decision Processes* 50 (2): 179–211) which includes personal variables such as subjective norms, attitude and perception of behavioural control. However, it may be affected, mediated or moderated by other variables or situational factors that influence the relationships between these predictors and intention. The aim of the present study is to analyse the moderating effect of attitudes on the link between the perception of behavioural control and intentions. For this purpose, Partial Least Squares Structural Equations Modeling (PLS-SEM) were used in a sample of 654 last year students from an Spanish University. The results highlight the important role that attitudes play as moderator of business intentions, since the direct effect of perceived control behaviour on intentions increases as attitudes increase. It is also worthy to stress the positive effect that the learning process and subjective norms have on entrepreneurs perceived control behaviour.

Lien, Donald; Keithley, Andrew (2020):

### The determinants of international branch campuses.

In: *Studies in Higher Education* 45 (2), S. 452–463. DOI: 10.1080/03075079.2018.1539961.

*Abstract:*

We apply the gravity model of international trade to country-level panel data on branch campus establishments and closures from 2007–2016. Accordingly, we arrive at the first elasticity estimates of the determinants of international trade in branch campuses, contributing to research in higher education and international trade in services. Our results suggest that, along with several gravity model control variables to trade in branch campuses the exporting country's university rankings, the host country's regulatory regime, and the presence of an education hub are particularly significant factors. Furthermore, we show that country development classifications affect the salience of some determinants. Finally, we demonstrate the robustness of our benchmark model with a variety of alternative model specifications. In addition to supporting academic endeavors, higher education institutions and host country governments will benefit from the insight our study provides when crafting programs and policies designed to improve their position in the higher education market.

Liu, Lu; Hong, Xi; Wen, Wen; Xie, Zheping; Coates, Hamish (2020):

### Global university president leadership characteristics and dynamics.

In: *Studies in Higher Education* 45 (10), S. 2036–2044. DOI: 10.1080/03075079.2020.1823639.

*Abstract:*

This exploratory paper articulates the development, characteristics and nature of global university presidents and their leadership. It draws insights from a growing project which so far has involved in-depth interviews with 18 presidents of major globally focused universities. Analysing and reporting these interview results reveals the enigmatic world of presidential leadership broadens this field of research beyond the Anglosphere, helps build interpretative frameworks and perspectives, and furnished insights for guiding leadership development. The exploratory findings reinforce the particular value of studying university presidents, as these people have enormous authority, expertise and prominence.

Lo Presti, Letizia; Marino, Vittoria (2020):

### Is online public engagement a new challenge in the university communication plan? A managerial perspective.

In: *Studies in Higher Education* 45 (7), S. 1380–1397. DOI: 10.1080/03075079.2019.1619680.

*Abstract:*

This paper proposes to explore the marketing communications that university websites use for promoting their public engagement (PE). The aim is to propose best practices that could guide universities towards community-orientated strategies advancing, in this way, the university PE agenda. This research explores this construct by means of a website content analysis on a sample of 50 American universities and elaborates a PE index with which to evaluate university PE. Moreover, the paper individuates the best practices from 10 universities that demonstrate a high PE index for each

approach of university PE online individuated in the literature. The evaluation of engagement activities can provide units and departments with valuable suggestions for improving the stakeholder engagement. Moreover, the universities can provide self-evaluation of their level of PE addressing their resources and competencies to fill their gaps.

Lozano, Jon (2020):

**Bridging the divide. Exploring the connections between student governments and higher education governing boards.**

In: *Studies in Higher Education* 45 (9), S. 1878–1891. DOI: 10.1080/03075079.2019.1593351.

*Abstract:*

Student members of governing boards, commonly called student trustees, came about during the 1960s due to the student activist movement. These students were originally intended to bridge the gap between students and governing boards. The scant literature exploring student trusteeship has ignored what effect, if any, the presence of these individuals have had on the relationship between student leaders and governing boards. Using data collected from student government presidents at colleges and universities in the United States, the present study explores this subject. Findings suggest student trustees have a mixed to negligible effect on this relationship. Results also show that undergraduate student government presidents perceive a stronger relationship with their governing boards than presidents of graduate or professional student governments.

Luczaj, Kamil; Bahna, Miloslav (2020):

**Explaining the role of international scholars in semi-peripheries. Evidence from Slovakia.**

In: *Studies in Higher Education* 45 (4), S. 706–722. DOI: 10.1080/03075079.2018.1550744.

*Abstract:*

The paper aims to examine the socio-demographic profiles of international scholars in Slovakia and the motivations which local higher education institutions have in hiring them. Slovakia is understood as a model semi-peripheral country in the global system of knowledge production. We rely on data from the Slovak Register of Higher Education Institutions Employees and an onomastic method which enabled us to identify particular international scholars. A multivariate analysis of public data allowed us to create an image of this heterogeneous group and reveal relationships between the share of foreigners employed by Slovak higher education institutions and the characteristics of these institutions. This supports the assumption that foreign-born faculty members serve primarily as a solution to the problem of qualified workforce shortages and should not be viewed as a sign of academic excellence.

Luque-Martínez, Teodoro; Faraoni, Nina (2020):

**Meta-ranking to position world universities.**

In: *Studies in Higher Education* 45 (4), S. 819–833. DOI: 10.1080/03075079.2018.1564260.

*Abstract:*

University rankings have proliferated in recent years and have been diverse, with a variety of profiles. This paper deals with the task of obtaining one single summarized ranking based on a selection of the most widely known rankings, in short, a meta-ranking. Five of the best-known rankings were selected and a database compiled with the major world universities that appear in at least four of the five rankings chosen. A meta-ranking was constructed, which differentiates between two dimensions, identifying the positions of universities in each and checking bias. The positioning of the universities is shown and seven clusters of world universities are identified, differences examined according to size, quality of scientific production, level of internationalization, features of the economic context and institutional attributes (staff-to-student ratio and percentage of female students). These results are useful for benchmarking by universities and national university systems, with a view to planning decisions.



Macfarlane, Bruce (2020):

The CV as a symbol of the changing nature of academic life. Performativity, prestige and self-presentation.

In: *Studies in Higher Education* 45 (4), S. 796–807. DOI: 10.1080/03075079.2018.1554638.

*Abstract:*

The effects of performativity in academic life are widely discussed and debated. Yet most analysis relies on conventional forms of empirical enquiry, notably interviews and questionnaires. The curriculum vitae (CV) is a comparatively neglected source of insight into the changing nature of academic life that offers a fresh insight. Drawing on the CVs of three generations of UK academics, this exploratory study analyses changing patterns of self-representation. While the CVs of scholars first academically active from the mid-1960s are largely a historical record, those of subsequent generations increasingly resemble a personal marketing tool. There has been an increase in the use of self-laudatory language, the presentation of evidence with respect to the impact of scholarship, and a shift in publication patterns towards the journal article. These trends, and others reported in this paper, appear to be related to the effects of performativity and contemporary understandings of academic prestige.

Marder, Ben; Houghton, David; Erz, Antonia; Harris, Lloyd; Javornik, Ana (2020):

Smile(y) – and your students will smile with you? The effects of emoticons on impressions, evaluations, and behaviour in staff-to-student communication.

In: *Studies in Higher Education* 45 (11), S. 2274–2286. DOI: 10.1080/03075079.2019.1602760.

*Abstract:*

Emoticon usage in computer-mediated communication (CMC) by university staff is potentially a double-edged sword in forming desired impressions in the minds of students, increasing perceived warmth but also decreasing perceived competence of the sender. Existing studies in higher education have provided little understanding of this trade-off. No work has examined effects of, first, emoticon usage on important educational outcomes (student evaluations, task behaviour), and second, potential moderators relevant within education (i.e. job title, institutional prestige, age of sender, assessment level). We contribute to this area of knowledge through three controlled experiments across different educational CMC settings (total n = 848). Generally, we find that emoticon use increases perceived warmth, which outweighs decrease in perceived competence of university staff, in that perceived warmth – but not competence – affects student evaluation and task behaviour positively. These findings hold largely irrespective of the moderators explored. Implications for higher education practitioners are provided.

Martin, Lynn; Lord, Gemma; Warren-Smith, Izzy (2020):

Juggling hats. Academic roles, identity work and new degree apprenticeships.

In: *Studies in Higher Education* 45 (3), S. 524–537. DOI: 10.1080/03075079.2018.1550478.

*Abstract:*

This study considers academic identity and the performance of identity work in the context of the design and delivery of new degree apprenticeships. Recent UK Policies have driven many changes in UK higher education, including the rapid development of new awards combining an apprenticeship with a full bachelor's or master's degree. Delivery requires university partnerships with industry, supported by significant government funding – and targets. Semi-structured in-depth interviews identified the pressures on 30 participants to retain academic identity in managing relationships with a range of different partners as shown in a generative model of academic identity work. Results show the ambiguities and uncertainties embedded in supporting academic identity, with stress caused by managerial approaches and difficulties in maintaining the identity of 'a proper academic' with implications for university management.

Masukume, Gwinyai (2020):

**Why and how medical schools, peer-reviewed journals, and research funders should promote Wikipedia editing.**

In: *Studies in Higher Education* 45 (5), S. 984–989. DOI: 10.1080/03075079.2020.1749796.

*Abstract:*

Do academics, both directly and indirectly involved with healthcare, have a moral mandate to ensure that Wikipedia has the most accurate, up-to-date and understandable information? From the perspective of a physician who is also a long-time Wikipedia editor, the ethical, moral, and power dynamics of the medical community's interaction with Wikipedia are explored in this paper. An attempt is made to reconcile and identify the key stakeholders affected by Wikipedia's accuracy and credibility, including medical institutions such as peer-reviewed journals, medical schools, research funders and academic reward systems. These stakeholders act as the true guardians of *Primum non nocere* – first to do no harm. Finally, suggestions are made on how to increase the sharing of medical knowledge on Wikipedia by focusing advocacy towards these 'true guardians' rather than relying on the benevolence of individual academics.

Mendoza, Pilar; Ocal, Secil Dayioglu; Wang, Ze; Zhou, Enyu (2020):

**Faculty norms and university/industry linkages in STEM.**

In: *Studies in Higher Education* 45 (7), S. 1474–1487. DOI: 10.1080/03075079.2018.1541451.

*Abstract:*

This study investigated academic norms related to faculty engagement with industry in one public research-intensive university in the United States in the fields of Science, Technology, Engineering, Mathematics, and Medical (STEMM). Primary methods included exploratory and confirmatory factor analysis, logistic regression, and ANOVA applied to responses to a survey instrument we implemented based on current literature on university/industry linkages. Results show how faculty embrace the coexistence of different logics in their norms differing by rank, type of engagement with industry, prior experience working in the industry, and field. Overall, faculty in this study hold values traditionally associated with the academic profession except when there are possibilities of participating in the market and seek commercial gain from research.

Mercer-Mapstone, Lucy; Bovill, Catherine (2020):

**Equity and diversity in institutional approaches to student–staff partnership schemes in higher education.**

In: *Studies in Higher Education* 45 (12), S. 2541–2557. DOI: 10.1080/03075079.2019.1620721.

*Abstract:*

Student cohorts in higher education are rapidly diversifying. Approaches to student engagement in teaching and learning must evolve to meet the changing needs of these diverse groups of students equitably. Student–staff partnership is an approach to student engagement embracing the diverse experiences of both students and staff. Growing evidence shows significant positive outcomes for students and staff. Practice, however, is dominated by small scale initiatives, limiting opportunities for equitable engagement. In institutions where partnership has been scaled-up, little research has explored these institutional partnership schemes. Our research addresses this gap by exploring institutional approaches to partnership across 11 universities in the United Kingdom. Results provide important lessons for improving equity in access to partnership schemes and the need for broader conceptions of scaling up partnership.

Merrill, Barbara; Finnegan, Fergal; O'Neill, Jerry; Revers, Scott (2020):

**'When it comes to what employers are looking for, I don't think I'm it for a lot of them'. Class and capitals in, and after, higher education.**

In: *Studies in Higher Education* 45 (1), S. 163–175. DOI: 10.1080/03075079.2019.1570492.

*Abstract:*

Much research on adults in higher education has focused on issues of access and participation. As a result little is known about what happens to working-class students after leaving university even though employability is high on the agenda HE research on this topic in relation to such students is sparse. This research focuses on the voices of working-class students and their aspirations in relation to employability. Using two student narratives this paper draws on the findings of two countries, England and Ireland, from a six-country European project on employability of non-traditional students using biographical research methods. Their stories reveal an awareness of class inequalities in the labour market in relation to cultural, economic and social capital and issues of locality, gender and age. The stories also indicate a sense of precarity in their lifecourse in a society which has become highly reflexive and fluid (Alheit, P., and B. Dausien. 2002. "The 'Double Face' of Lifelong Learning: Two Analytical Perspectives on a 'Silent Revolution'." *Studies in the Education of Adults* 34 (1): 3–23).

Merry, Stephen; Orsmond, Paul (2020):

**Peer assessment. The role of relational learning through communities of practice.**

In: *Studies in Higher Education* 45 (7), S. 1312–1322. DOI: 10.1080/03075079.2018.1544236.

*Abstract:*

Our work concerned the socio-cultural practices of tutors from diverse higher education institutes. The tutors were practising lecturers who had contributed to peer assessment studies published in refereed academic journals. Analysis of interview data considered the relational interdependency of tutors' and students' activity in the socially and culturally structured world of peer assessment. Undertaking peer assessment led to changes in: (1) relational learning between tutors and students, and (2) tutors' and students' perceived identities. The findings are discussed in terms of: (a) learning in communities of practice through boundary interactions with other communities, and (b) the participatory and acquisition metaphors of learning. The wider role of peer assessment in terms of interactions, communications and the balance of learning metaphors in higher education is considered.

Mohammadi, Shno; Karupiah, Premalatha (2020):

**Quality of work life and academic staff performance. A comparative study in public and private universities in Malaysia.**

In: *Studies in Higher Education* 45 (6), S. 1093–1107. DOI: 10.1080/03075079.2019.1652808.

*Abstract:*

The aim of this study is to explore the relationship between the quality of work life (QWL) of academic staff in universities and how QWL affects their performance. Data for this study were collected using a questionnaire from 379 academic staff in public and private universities in Malaysia. This study found differences among demographic variables in QWL and work performance by using t-test and one-way ANOVA method. Partial Least Square was used to explain the relationship among dimensions of QWL and performance. The result implied that dimensions of powerlessness and tolerance at workplace affected performance in public universities, while dimensions of financial, co-worker relationship and tolerance at workplace have positive significant relationship with performance in private universities. The findings show that managers of universities must pay more attention on the significant dimensions and improve them among the academic staff in order to achieve a high level of work performance.

Mok, Ka Ho; Jiang, Jin (2020):

**Towards corporatized collaborative governance. The multiple networks model and entrepreneurial universities in Hong Kong.**

In: *Studies in Higher Education* 45 (10), S. 2110–2120. DOI: 10.1080/03075079.2020.1823647.

*Abstract:*

Realizing the growing importance of universities in Knowledge Transfer and innovation-centric entrepreneurship, the Government of the Hong Kong Special Administrative Region (HKSAR) actively encourages government-funded universities

in Hong Kong to work with the market and industry, as well as wider society to stimulate innovation and entrepreneurship. This article aims to examine the changing university governance in Hong Kong particularly when universities go beyond the academia to work with industries and businesses to promote innovation-centric entrepreneurialism. It begins with a conceptual framework for analyzing multiple sectoral collaborations for entrepreneurship with a focus on the role of universities. It will discuss how the HKSAR copes with the main challenges of university governance by adopting policies and measures to creating a hybridized ecosystem so as to embrace cross-sectoral collaborations. The article concludes by critical reflections on changing university governance in Hong Kong when responding to the quest for entrepreneurial universities.

Mountford, Nicola; Coleman, Matthew; Kessie, Threase; Cusack, Tara (2020):

### Interdisciplinary doctoral research networks. Enhancers and inhibitors of social capital development.

In: *Studies in Higher Education* 45 (12), S. 2558–2573. DOI: 10.1080/03075079.2019.1623768.

#### Abstract:

Interdisciplinary research networks are increasing, with professionals encouraged to undertake research across disciplines to increase innovation, creativity and knowledge. More recently, this interdisciplinary focus is being mirrored by the establishment of interdisciplinary doctoral research networks. But do these networks work? And if so, how and why? We employ social capital theory to (a) understand the lived experiences of students in interdisciplinary doctoral programmes and (b) build programme design theory to support the development of social capital within such programmes. We present the results of 28 semi-structured interviews conducted with doctoral students from three European Union funded interdisciplinary research training networks to understand how they perceive the enhancers, inhibitors and manifestations of social capital within their networks. Key themes revolve around ‘extracting value from the interdisciplinary process’, ‘motivating students throughout the interdisciplinary programme journey’, and ‘relating to others both within and external to the programme’. We propose a framework for interdisciplinary programme design.

Mourad, Maha; Meshreki, Hakim; Sarofim, Samer (2020):

### Brand equity in higher education. Comparative analysis.

In: *Studies in Higher Education* 45 (1), S. 209–231. DOI: 10.1080/03075079.2019.1582012.

#### Abstract:

Brand equity in higher education has received significant scholarly attention in recent years. However, there are a number of contradictions between the empirically approved determinants and the dimensions of brand equity in higher education. This research empirically investigates an adopted brand equity conceptual model in both a developed market and an emerging higher education market to develop a comparative analysis based on cultural dimensions. The empirical study included a qualitative exploratory research and a subsequent quantitative research in USA (an example of a developed market) and Egypt (an example of emerging market). Further, the authors qualitatively explored, via in-depth qualitative interviews, the industry for more insightful results based on customer's perception in both markets. Findings indicated that the determinants of brand equity reported in the literature vary depending on the higher education industry maturity and cultural contexts.

Mukesh, H. V.; Pillai, K. R.; Mamman, Jose (2020):

### Action-embedded pedagogy in entrepreneurship education: an experimental enquiry.

In: *Studies in Higher Education* 45 (8), S. 1679–1693. DOI: 10.1080/03075079.2019.1599848.

#### Abstract:

Scholarly community has raised concerns over the effectiveness of traditional classroom pedagogy in entrepreneurship education (EE), highlighting the need for alternative pedagogic approach. Our study explores the superiority of action learning pedagogy over traditional classroom pedagogy for EE, to overcome these challenges. The impact of both pedagogic approaches was assessed through entrepreneurial self-efficacy and entrepreneurial intention. A randomized experimental, pre-and-post-tests with control and treatment groups design was followed to accomplish the study

objectives. The results affirmed that those who were exposed to action learning pedagogy (treatment group) would have significantly high level of entrepreneurial self-efficacy and entrepreneurial intention compared to those with traditional classroom pedagogy (control group). It was also found that the EE has positive influence on entrepreneurial self-efficacy and entrepreneurial intention between both the groups. The study reiterates that EE, with action learning, has a high degree of influence on entrepreneurial intention, and, hence, its importance in EE.

Mukwambo, Patience (2020):

**Policy and practice disjunctures. Quality teaching and learning in Zimbabwean higher education.**

In: *Studies in Higher Education* 45 (6), S. 1249–1260. DOI: 10.1080/03075079.2019.1596075.

**Abstract:**

Although several studies have examined how quality teaching and learning is defined and operationalised in the global North, there is a paucity of such studies in developing country contexts. Using Zimbabwe as a case study, the research applies Sen's idea of deliberative democracy to a multi-stakeholder evaluation of policy formulation and practices in university teaching and learning. The study reveals a disjuncture between policy and practice, which has implications for the learning processes and valued outcomes of higher education. The paper proposes the broadening of the current technical-rational approaches to quality, to incorporate other stakeholder perspectives in informing a contextually relevant understanding of quality and its practices. Thus, beyond skills and knowledge acquisition, teaching and learning would foster other valued capabilities as quality learning outcomes.

Muñoz, Cristian A.; Guerra, Mauricio E.; Mosey, Simon (2020):

**The potential impact of entrepreneurship education on doctoral students within the non-commercial research environment in Chile.**

In: *Studies in Higher Education* 45 (3), S. 492–510. DOI: 10.1080/03075079.2019.1597036.

**Abstract:**

Chilean doctoral programs in science and technology generally do not consider entrepreneurial training within their curricula. Taking an entrepreneurial competency approach, we explore the potential impact of introducing an entrepreneurship education course to doctoral students based within a non-commercial research environment. We identified two main areas of possible impact: the potential effects upon doctoral research projects and upon the doctoral students themselves. We followed the learning experiences of science and technology PhD students before, during, and a year after an entrepreneurial course through a multiple case study research design. Our results suggest that entrepreneurship education has a positive impact upon the development of student's creative problem-solving and communication skills. This was reported to have a generally positive effect upon the students' doctoral projects and on the student's self-efficacy and entrepreneurial intentions. We conclude that entrepreneurship education complements traditional doctoral training for students within a non-commercial academic setting.

Nanayakkara, Chiharu; Yeoh, William; Lee, Alvin; Moayedikia, Alireza (2020):

**Deciding discipline, course and university through TOPSIS.**

In: *Studies in Higher Education* 45 (12), S. 2497–2512. DOI: 10.1080/03075079.2019.1616171.

**Abstract:**

During course selection, students have to consider many criteria to arrive at the best course to study at the institution that provides the best fit for their aspirations. However, a central issue that reduces the clarity of course consideration and results in suboptimal decisions is the failure of introspection. While people can usually describe the information they have considered to arrive at a decision for a specified outcome, they can rarely articulate the process they used to make the decision. Thus, this paper proposes the use of multi-criteria decision making approach and tests a model using the TOPSIS approach to tackle the processes associated with introspection. The results find that TOPSIS is able to use a set of criteria to help students systematically and rigorously choose a suitable course of study. This research is useful for potential tertiary students, education providers, education agencies and recruitment officers.

Orazbayeva, Balzhan; Davey, Todd; Plewa, Carolin; Galán-Muros, Victoria (2020):

Engagement of academics in education-driven university-business cooperation. A motivation-based perspective.

In: *Studies in Higher Education* 45 (8), S. 1723–1736. DOI: 10.1080/03075079.2019.1582013.

*Abstract:*

The importance of university-business cooperation (UBC) continues to grow. To date, however, our understanding of UBC in education is lacking, as is our knowledge of the motivations of academics. This research explores a comprehensive mix of motivations underlying education-driven UBC in the form of student mobility, curriculum design and delivery, and lifelong learning. Specifically, drawing on self-determination theory, motivations across five orientations are examined, namely monetary, career, research, educational and social. Based on an extensive and wide-reaching European survey, this research demonstrates the context-specific nature of academic motivations for UBC in education. Not only do the motivations differ from those commonly noted in relation to commercialisation, the set of motivations varies across different education-driven activities. This research offers important contributions to theory and practice, revealing that academics are motivated more strongly by intrinsic than extrinsic reasons, with only social and educational orientations emerging as significant motivations across all four activities.

Patricio, Maria Teresa; Santos, Patricia (2020):

Collaborative research projects in doctoral programs. A case study in Portugal.

In: *Studies in Higher Education* 45 (11), S. 2311–2323. DOI: 10.1080/03075079.2019.1607282.

*Abstract:*

Universities are renovating the formats and configurations of their doctoral programs to become more international, collaborative and attentive to labor market needs. In a competitive global setting doctoral programs compete to attract students, promote international partnerships, engage with industry and provide students with the social capital necessary for future employability. A quantitative study of 149 PhD students in 15 collaborative doctoral programs between Portugal and three US universities offers insight into doctoral programs structured around international mobility, collaborative research projects, and university-industry collaborations. The survey results show that doctoral students in Science, Technology, Engineering and Mathematics (STEM) fields value programs that promote academic opportunities with international networks and participation in research projects. Social capital seems to have been acquired mainly through networks and contacts with other researchers and peers. The results reveal the limitations of the university-industry collaborations and that most students continue to anticipate employment in academia.

Pee, L. G. (2020):

Enhancing the learning effectiveness of ill-structured problem solving with online co-creation.

In: *Studies in Higher Education* 45 (11), S. 2341–2355. DOI: 10.1080/03075079.2019.1609924.

*Abstract:*

Ill-structured problem solving is widely believed to promote learning in higher education but its multiplicity (i.e. multiple solutions and evaluation criteria) is often seen as a challenge to manage. This study shows that the multiplicity can be managed as well as leveraged to enhance learning effectiveness through online co-creation. Three co-creation activities are identified and their effects on different aspects of learning effectiveness are assessed in a study involving 225 tertiary-level students. Results indicate that solution co-creation and solution sharing enhance cognitive learning (e.g. perceived knowledge about a subject topic), while decision co-creation enhances epistemic learning (e.g. perceived understanding of criteria of knowing). The findings demonstrate the value of online co-creation and they pave the way for more research on online co-creation in other collaborative pedagogical practices such as co-skilling.

Pérez-Macías, Noemí; Fernández-Fernández, José-Luis; Rúa Vieites, Antonio (2020):

The impact of network ties, shared languages and shared visions on entrepreneurial intentions of online university students.

In: *Studies in Higher Education* 45 (12), S. 2526–2540. DOI: 10.1080/03075079.2019.1619682.

*Abstract:*

There is a scarcity of research on the influence of structural -network ties (NT)-, cognitive -shared languages (SL) and shared visions (SV)- social capital (SC) dimensions on online students' entrepreneurial intentions (EI). This paper, drawing on the Theory of Planned Behavior (TPB), examines this influence on a sample of 302 Spanish online university students (graduate and undergraduate). The technique employed to perform the analysis is Partial Least Squares (PLS) -Structural Equation Modelling (SEM). Results confirm the key role played by SL and SV in the development of EI through the catalyst role played by NT and through the mediation of the main antecedents of the TPB. In conclusion, in online universities SL and SV are needed in order to ease students' NT and increase their EIs and should be considered when designing the university strategy and the students' syllabus.

Pigden, Louise; Jegede, Franc (2020):

Thematic analysis of the learning experience of joint honours students. Their perception of teaching quality, value for money and employability.

In: *Studies in Higher Education* 45 (8), S. 1650–1663. DOI: 10.1080/03075079.2019.1661985.

*Abstract:*

The focus of the research was students' perceptions of whether joint honours degrees represented a sound student learning experience and led to good academic and employability outcomes. In this minority mode of study for the United Kingdom, students study two academic subjects, rather than the more usual single subject. The qualitative methodology followed was a thematic analysis of self-administered questionnaire data, collected from joint honours students at four English universities in the United Kingdom. The principal results were that the students experienced difficulties in fitting into the two communities of learning for their respective subjects; in being adequately supported; in disparities in teaching, learning and assessment between their two subjects, and in a high workload. The major conclusion was that although the students perceived their learning experiences to have value by virtue of having studied two subjects, a number of issues stymied their achieving the best learning experience possible.

Ramlo, Susan (2020):

Free speech on US university campuses. Differentiating perspectives using Q methodology.

In: *Studies in Higher Education* 45 (7), S. 1488–1506. DOI: 10.1080/03075079.2018.1555700.

*Abstract:*

Recently, campus free speech has become a focus of contentious debate and increased scrutiny. This study confirms that although university stakeholders may generally embrace the concept of free speech on campus, they also disagree about its limits and purpose within higher education, even if they are from the same institution. This investigation used Q methodology to scientifically study the subjectivity (viewpoints) among a diverse set of university stakeholders within the United States. Participants provided a snapshot of their views by sorting 55 statements related to speech on campus. The analyses revealed consensus, distinguishing statements, and rich descriptions of five unique speech on campus viewpoints: Idealistic, Social Justice, Speech Crisis, Sage on the Stage, and Fox News. These viewpoints provided insights about how university stakeholders perceive speech on campus. Consensus includes acceptance that ideas taught and expressed at institutions of higher education should rest with the faculty. Implications are discussed.

Römgens, Inge; Scoupe, Rémi; Beusaert, Simon (2020):

Unraveling the concept of employability, bringing together research on employability in higher education and the workplace.

In: *Studies in Higher Education* 45 (12), S. 2588–2603. DOI: 10.1080/03075079.2019.1623770.

*Abstract:*

In different streams of literature employability has been defined in different, often related ways. We take an interdisciplinary approach, combining insights from research on higher education and workplace learning, taking a Western perspective. In doing so we take a multi-dimensional, competence-based approach. Our approach to conceptualizing employability responds to research from both disciplines arguing for a need of integrating approaches to employability, for a unified overview of conceptual frameworks and agreement on definitions of the concept. We conclude that models of employability from these different disciplines can reinforce each other. Certain dimensions of employability are less taken into account in one discipline, while receiving a lot of attention in the other. Hence, our work opens new avenues for conceptual and empirical research on employability in both domains. Moreover, it might influence how researchers and practitioners research and support (lifelong) learning for employability, both in higher education and in the workplace.

Rose, Heath; Curle, Samantha; Aizawa, Ikuya; Thompson, Gene (2020):

What drives success in English medium taught courses? The interplay between language proficiency, academic skills, and motivation.

In: *Studies in Higher Education* 45 (11), S. 2149–2161. DOI: 10.1080/03075079.2019.1590690.

*Abstract:*

This article explores the relationship between course performance, English language proficiency, motivation, and academic language skills in an English medium instruction (EMI) university context. It analyses test and questionnaire data from 146 students from an EMI business program at a Japanese university, and follow-up interviews with seven students. Proficiency test and subject exam scores revealed that knowledge of English language and academic English skill were statistically significant predictors of success in EMI, suggesting that lower proficiency students require more targeted language support in order to increase their likelihood of success. A motivation measure did not correlate with higher grades, contradicting research in language learning contexts. Interview data uncovered the multi-faceted nature of 'success in EMI' suggesting that students see success as a combination of final grades, lecture comprehension, English language proficiency gains, and long-term career advancement.

Rossi, Federica; Goglio, Valentina (2020):

Satellite university campuses and economic development in peripheral regions.

In: *Studies in Higher Education* 45 (1), S. 34–54. DOI: 10.1080/03075079.2018.1506917.

*Abstract:*

Satellite university campuses – whereby established universities decentralise part of their activities, often to areas previously lacking a university – contribute to the diversification of university systems. While satellite campuses, due to their small scale and limited resources, might perform some activities less efficiently than their larger parent universities, we argue that they are uniquely placed to serve the needs of their localities. Based on the case of a satellite campus in North-West Italy, we show that: (i) the campus' main contribution lies in widening access to higher education to residents who would not attend university in the absence of local provision; (ii) the campus contributes to local development also through research and business and community engagement, and by stimulating local demand for knowledge-intensive services; (iii) research and engagement are more effective for local development where local firms possess relevant absorptive capacity and where there is a favourable institutional framework.



Rymarzak, Małgorzata; den Heijer, Alexandra; Curvelo Magdaniel, Flavia; Arkesteijn, Monique (2020):

### Identifying the influence of university governance on campus management. Lessons from the Netherlands and Poland.

In: *Studies in Higher Education* 45 (7), S. 1298–1311. DOI: 10.1080/03075079.2019.1616167.

#### Abstract:

The purpose of this article is to describe the effects of university governance on campus management based on the examples of the Netherlands and Poland. The study connected theory on campus management with a concept of five dimensions of university governance (autonomy, management, participation, accountability and transparency) into an innovative and coherent analytical framework. Based on a qualitative approach, legal regulations and all public universities' campus goals in both countries were analysed. The results indicate that university governance and each of its five dimensions stir consequences on campus management. This suggests that any university governance reforms should take real estate and facilities into account. Disregarding them can lead to universities' suboptimal decisions and consequently affect (directly or indirectly) their sustainable development, productivity, profitability and competitive advantage. An understanding of the presented conception is crucial for the construction of viable higher education policy and improvement of universities performance.

Santos, Gina Gaio (2020):

### Career boundaries and employability perceptions. An exploratory study with graduates.

In: *Studies in Higher Education* 45 (3), S. 538–556. DOI: 10.1080/03075079.2019.1620720.

#### Abstract:

This study focus is on career boundaries to graduate employability in a crisis economy. The underlying theoretical framework focus on career boundary theory and perceived employability. The empirical findings are based on a small-scale qualitative study that includes five focus group interviews conducted with Portuguese graduates of both genders in the academic fields of Business and Management. The analysis reveals that graduate employability is constrained by four types of career boundaries: (1) Organizational and work-related boundaries; (2) Contextual and labour-market boundaries; (3) Personal-related boundaries; and (4) Cognitive-cultural boundaries. This article contributes to the literature by highlighting the diversified nature of the career boundaries that graduates encounter in both external and internal labour markets. At the policy level, the findings underline that the issue of graduate employability requires a concerted effort among governmental entities and Higher Education policy-makers, as well as employers, and cannot be the sole responsibility of the individual.

Seeber, Marco; Meoli, Michele; Cattaneo, Mattia (2020):

### How do European higher education institutions internationalize?

In: *Studies in Higher Education* 45 (1), S. 145–162. DOI: 10.1080/03075079.2018.1541449.

#### Abstract:

This article explores how higher education institutions (HEIs) internationalize, employing information on the internationalization activities (IA), context and organizational characteristics of 431 HEIs from 33 European countries. A latent cluster analysis identifies three distinct clusters of HEIs with distinct portfolios of IA: basic, academic and entrepreneurial. The basic portfolio includes the most common IA, whereas IA requiring larger organizational capacity are rare. The entrepreneurial portfolio distinguishes from the academic portfolio as it also includes IA aimed to attract resources. We explore what contextual and organizational traits characterize HEIs with different IA portfolios. Small HEIs tend to display a basic portfolio, without national variations. On the contrary, strong national variations exist in the frequency of academic and entrepreneurial portfolios, which strongly relate to the actual and potential importance of tuition fees as a source of revenues.

Seppala, Nina; Smith, Charlotte (2020):

### Teaching awards in higher education. A qualitative study of motivation and outcomes.

In: *Studies in Higher Education* 45 (7), S. 1398–1412. DOI: 10.1080/03075079.2019.1593349.

#### Abstract:

Whilst teaching awards have become an established practice in higher education, important questions remain about their effectiveness in recognizing high-quality teaching, with recent research suggesting that they may have dysfunctional consequences. We investigate how awards are perceived and impact upon recipients and non-recipients and propose that the potential of teaching awards is mediated by career stage, focus and performance. We also make recommendations for how teaching awards can contribute to a culture of teaching enhancement beyond the recognition of individual practice. In this way, we make a contribution by showing how teaching awards can be designed and used to recognize teaching practice while limiting their dysfunctional outcomes.

Sharafizad, Jalleh; Redmond, Janice (2020):

### Discretionary effort of higher education sector employees. Motivators and inhibitors.

In: *Studies in Higher Education* 45 (6), S. 1261–1279. DOI: 10.1080/03075079.2019.1628200.

#### Abstract:

This research examines the impact of non-monetary work environment factors on employee discretionary effort within the higher education sector in Australia. There is limited qualitative research that examines the factors that drive and inhibit employee discretionary effort especially in the higher education sector. Semi-structured interviews were conducted with 20 higher education institution academics and support staff using a purposive sampling method. The findings of this research suggest that professional commitment has important implications for discretionary effort within the higher education sector and needs to be explored. The findings also support job design, job characteristics and organisational factors (e.g. excessive workload) as having a direct influence on discretionary behaviour. However, two previously identified factors, organisational culture and leadership and management factors, did not have the expected influence on discretionary effort by the participants due to their negative perception of the current culture within all institutions in the Higher Education Sector.

Sharma, Bibhya; Nand, Ravneil; Naseem, Mohammed; Reddy, Emmenual V. (2020):

### Effectiveness of online presence in a blended higher learning environment in the Pacific.

In: *Studies in Higher Education* 45 (8), S. 1547–1565. DOI: 10.1080/03075079.2019.1602756.

#### Abstract:

The widespread use of technology has facilitated many changes in the education sector including higher education. Academic institutes are concentrating their efforts on measuring the level of student engagement and participation in online learning environments for student success. This paper analyses student log data to quantify the effectiveness of online presence on student performance in a blended course using frequency and duration as indicators. The analysis shows both frequency and duration having a statistically significant impact on the students' final marks. The study proposes a multiple linear regression model using these measurements to predict the final mark of students in a blended learning environment. The predictive regression model, explained through the use of two new models; Online Measurable Presence Model (OMPM) and Slingshot model, can be used to determine the effectiveness of student online presence for success in a blended higher learning environment in the Pacific.

Shaw, Amy; Liu, Ou Lydia; Gu, Lin; Kardonova, Elena; Chirikov, Igor; Li, Guirong et al. (2020):

### Thinking critically about critical thinking. Validating the Russian HEIghten® critical thinking assessment.

In: *Studies in Higher Education* 45 (9), S. 1933–1948. DOI: 10.1080/03075079.2019.1672640.

*Abstract:*

Critical thinking has been identified as a crucial general skill contributing to academic and career success in the twenty-first century. With the increasing demands of the modern workplace and a global trend of accountability in higher education, educators and employers pay great attention to the development of students' critical thinking skills throughout their training. Therefore, there is an urgent need worldwide for an updated and comprehensive assessment tool of college-level critical thinking. This paper reports on the preliminary validation for the Russian version of the HEIghten® Critical Thinking assessment developed by Educational Testing Service (ETS). Based on a large Russian college student sample (N = 1060), we evaluated the psychometric quality of the items, individual and institution-level reliability, external validity, and student perceptions. Overall, the results suggested good psychometric quality, except that a few items showed low discriminating power and should be further examined with a second wave of data collection. IRT analyses revealed testlet effects and supported the essentially unidimensional structure of the measure. Appropriate correlations with external criteria provided support for the measure's convergent validity. Implications of the preliminary validation study results and the future research agenda, especially the need to collect longitudinal data, are discussed.

Shen, Wenqin; Huang, Ying; Fan, Wei (2020):

**Morality and ability. Institutional leaders' perceptions of ideal leadership in Chinese research universities.**

In: *Studies in Higher Education* 45 (10), S. 2092–2100. DOI: 10.1080/03075079.2020.1823645.

*Abstract:*

University leadership is considered as a key factor in university development. In a competitive environment, the role of university leadership has become increasingly important. At present, China is committed to building world-class universities, and university leadership is one of the key factors. Thus, what is the ideal university leadership in China's institutional environment? What professional qualities should university leaders have? This study investigates this issue with in-depth interviews of 14 '985 Project' university leaders. Finding shows that the definition of leadership by Chinese university leaders reflects a relatively strong moralistic orientation, where morality and ability are considered important. Furthermore, morality is often supposed to be more important than ability. In terms of competence, the definitions of leadership by Chinese university leaders and the literature on Western university leadership have some similarities and differences. Chinese universities are managed by the two systems of the party committee and the administration. The division of labour between the two systems is unclear and prone to conflicts. Therefore, the attitude and ability to cooperate has become an important attribute among university leaders.

Shields, Robin; Watermeyer, Richard (2020):

**Competing institutional logics in universities in the United Kingdom. Schism in the church of reason.**

In: *Studies in Higher Education* 45 (1), S. 3–17. DOI: 10.1080/03075079.2018.1504910.

*Abstract:*

Theoretical literature on institutions emphasizes the importance of logics – shared rationalizations – in determining many aspects of organizations. In this literature, universities are often discussed as an example of an institution with a particularly strong and cohesive logic, one rooted in notions of academic excellence and the pursuit of universal knowledge. However, more recent literature has argued that multiple institutional logics often compete and conflict with one another in a single organization. In this paper, we use the notion of competing logics to examine how academics in the United Kingdom understand the university as an institution. We perform a factor analysis on questionnaires completed by academics to identify overarching rationalizations of universities. Our analysis suggests three competing institutional logics characterize universities: autonomy, utilitarianism and managerialism. We show these multiple logics produce competing models of the university as an institution, and we discuss the practical and theoretical implications.

Shin, Jung Cheol; Watanabe, Satoshi P.; Chen, Robin Jung-Cheng; Ho, Sophia Shi-Huei; Lee, Jin-kwon (2020):

**Institutionalization of competition-based funding under neoliberalism in East Asia.**

In: *Studies in Higher Education* 45 (10), S. 2054–2062. DOI: 10.1080/03075079.2020.1823641.

*Abstract:*

This study analyzes and discusses how competition-based funding has been institutionalized in the three North East Asian countries of Japan, Korea, and Taiwan since the neoliberal reforms in the 1990s. We found that states set aside additional, 'competition-based' funding for distribution among higher education institutions. In addition, private universities have emerged as winners at the zero-sum game because their management styles are much more aligned with the managerial style. However, private universities are bound by state policy, and regulatory frameworks are deeply institutionalized within them with the growing public funding. We also observe that institutional practices of public universities are moving to market-oriented systems because of the growing competition. However, the increased responsiveness of HEIs to state policy does not necessarily result in an increase in their societal contributions because a university as a professional organization has the potential for generating a better societal contribution through collaborations as well as competition.

Skalicky, Jane; Warr Pedersen, Kristin; van der Meer, Jacques; Fuglsang, Sally; Dawson, Phillip; Stewart, Sarah (2020):

### A framework for developing and supporting student leadership in higher education.

In: *Studies in Higher Education* 45 (1), S. 100–116. DOI: 10.1080/03075079.2018.1522624.

*Abstract:*

Developing leadership in students is part of the remit of higher education institutions. In recent decades, student leadership development programs have proliferated at universities worldwide. However, the contested understanding of the term 'leadership' has resulted in lack of clarity regarding how this may be 'developed' in higher education. There are many programs that contribute towards developing leadership in students and not all of them do so explicitly. Moreover, in the absence of clear conceptual underpinnings and pedagogic approaches, it is questionable whether these programs can deliver the graduate capabilities employers are increasingly expecting. Recognising this diversity and range of different understandings of leadership that underpin these programs, this paper presents an overarching inclusive framework that provides guidelines to support quality assurance across the broad range of leadership development initiatives in higher education. The paper describes the development of the framework, explains its core components and provides an illustration of it.

Skvoretz, John; Kersaint, Gladis; Campbell-Montalvo, Rebecca; Ware, Jonathan D.; Smith, Chrystal A. S.; Puccia, Ellen et al. (2020):

### Pursuing an engineering major. Social capital of women and underrepresented minorities.

In: *Studies in Higher Education* 45 (3), S. 592–607. DOI: 10.1080/03075079.2019.1609923.

*Abstract:*

As part of a longitudinal research effort that examines the influence of social capital on differential persistence and retention among undergraduate engineering majors, this study examines how engineering degree-related social capital differs for first-year engineering students by gender and ethno-racial groups. Social capital is operationalized as a person's network of relationships with individuals who hold influential positions (e.g. parent, teacher, advisers) and access to resources that support persistence in engineering programs. Our data comprise survey responses from 2186 first-year engineering students, from eleven diverse colleges and universities, who provided information about their participation in engineering-related courses, activities, and programs while in high school as well as the individuals who influenced their decision to pursue an engineering major. We found few differences in social capital between men and women, but found many differences among ethno-racial groups, which suggests that different levels of social capital could influence students' persistence and retention.

Sloan, D.; Manns, H.; Mellor, A.; Jeffries, M. (2020):

### Factors influencing student non-attendance at formal teaching sessions.

In: *Studies in Higher Education* 45 (11), S. 2203–2216. DOI: 10.1080/03075079.2019.1599849.

*Abstract:*

Motivated by falling levels of attendance at classes, this paper explores student reasons for non-attendance within Undergraduate Programmes at a post 1992 UK university. Questionnaires collected demographic profiling information and

factors students thought influenced attendance. Closed questions established how important attendance was in influencing grades and how motivated students considered themselves to be. Findings reveal variables including age, gender, level of study and work commitments had no significant impact on reported attendance, levels of interest and motivation were important. Students identified lectures as the session they were least likely to attend and unseen exams the assessment type most likely to encourage attendance. Unprompted reasons for non-attendance included illness, tiredness, socialising; with institutional factors such as the impact of other university work, timetabling and topic. Key interventions include attendance monitoring, marks for attendance, alignment of lecturer style to content delivery, and establishing an explicit link between lecture content and assessment.

Smith, Sally; Hamilton, Margaret; Fabian, Khristin (2020):

**Entrepreneurial drivers, barriers and enablers of computing students. Gendered perspectives from an Australian and UK university.**

In: *Studies in Higher Education* 45 (9), S. 1892–1905. DOI: 10.1080/03075079.2019.1637840.

*Abstract:*

This paper investigates computing students' entrepreneurial intentions, motivations, recognisable barriers and encouragements towards entrepreneurship, with a focus on gender. Two universities, one in Australia and one in the UK (n = 247), were used as locations for the research to consider two distinct contexts. In each university there were similarly high levels of interest in entrepreneurship among computing students, however some significant differences in responses were found, especially between male and female participants. Job flexibility was a strong motivation for the UK-based female participants; while female participants at the Australian university identified internal barriers (such as lack of confidence and experience). Enablers to entrepreneurial activity were identified, including access to incubators and academic support. Directing such support towards computing students, while recognising gender differences, could increase interest in, and take-up of, entrepreneurship. Recommendations are made regarding how universities can best support would-be entrepreneurs and encourage inclusive entrepreneurship into the future.

Soon, Jan-Jan; Lee, Angela Siew-Hoong; Lim, Hock-Eam; Idris, Izian; Eng, William Yong-Keong (2020):

**Cubicles or corner offices? Effects of academic performance on university graduates' employment likelihood and salary.**

In: *Studies in Higher Education* 45 (6), S. 1233–1248. DOI: 10.1080/03075079.2019.1590689.

*Abstract:*

This paper uses a 2016/2017 sample of 1107 freshly minted university graduates from a public and a private university in Malaysia. Against a backdrop of an institutional setting very much different from that of western countries' and issues of high living costs and graduate unemployment, we analyse how academic performance affects graduates' employment likelihood, salaries, and salary distribution. Using quantile estimations, we find that academic performance is not a key determinant in whether or not a graduate secures a job upon graduation, and that having better academic performance would only be beneficial if the graduates are working in jobs at the lower half of the salary distribution. We fill the literature gap by analysing how academic performance affects new graduates in terms of where they are on the salary distribution continuum; such analyses are neglected in the literature.

Sotardi, Valerie A.; Brogt, Erik (2020):

**Influences of learning strategies on assessment experiences and outcomes during the transition to university.**

In: *Studies in Higher Education* 45 (9), S. 1973–1985. DOI: 10.1080/03075079.2019.1647411.

*Abstract:*

During the transition to university, early summative assessments may serve as powerful indicators of academic performance and perceived competence by students. How students learn in preparation for these assessments may be determinants of task-related experience and outcomes. The current study investigated the influences of learning strategies

on anxiety, grade, and academic self-efficacy upon completing an early summative assessment at university. With a sample of New Zealand university students ( $n = 233$ ), a hypothesized model was tested predicting the influences of rehearsal and elaboration strategies on assessment-related experience and outcomes. Results showed rehearsal strategies to have a positive influence on state anxiety and, to a lesser degree, academic self-efficacy; by comparison, elaboration strategies had no influence on state anxiety but a strong, positive influence on academic self-efficacy. State anxiety had a negative influence on both task grade and academic self-efficacy. The benefits of academic support during the university transition are discussed.

Sotiriadou, Popi; Logan, Danielle; Daly, Amanda; Guest, Ross (2020):

### The role of authentic assessment to preserve academic integrity and promote skill development and employability.

In: *Studies in Higher Education* 45 (11), S. 2132–2148. DOI: 10.1080/03075079.2019.1582015.

#### Abstract:

Promoting authenticity and academic integrity in assessment continues to present a priority for educational institutions. Besides providing the foundation for high academic standards and best practice, authentic assessments and academic integrity enrich students with skills that advance their employability. Given the multilayered significance of, and need for promoting academic integrity, this study used a suite of scaffolded authentic assessments that culminated with interactive oral examinations. A survey evaluated the effectiveness of interactive oral exams in offering authentic assessments that would prevent students from engaging in academic misconduct and help them improve their skill and employability prospects. The results show that scaffolded assessment tasks that include interactive orals help prevent academic misconduct. The more relevant the assessment to real-world scenarios, the less likely students are to engage in misconduct. Additionally, interactive oral exams enabled students to develop their professional identity and awareness, and communications skills, and help promote employability.

Succi, Chiara; Canovi, Magali (2020):

### Soft skills to enhance graduate employability. Comparing students and employers' perceptions.

In: *Studies in Higher Education* 45 (9), S. 1834–1847. DOI: 10.1080/03075079.2019.1585420.

#### Abstract:

The aim of this article is to show the increased relevance of soft skills in a continuously changing environment. A research was carried out to examine and compare students' and employers' perceptions regarding the importance of soft skills in different European countries. Results show that 86% of respondents indicate an increased emphasis on soft skills over the last 5–10 years and that companies consider soft skills more important than students/graduates. Furthermore, major differences have also been identified in the ranking of the 20 soft skills listed in this paper, indicating different levels of priorities. This paper suggests that companies and Higher Education Institutions (HEIs) need to work together not only to increase students' awareness of the importance of soft skills but also to guide them in taking individual responsibility to acquire and develop these essential skills in order to continuously adapt to the changing labour market and improve their employability.

Sword, H.; Sorrenson, P.; Ballard, M. (2020):

### BASE pleasures. The behavioural, artisanal, social and emotional dimensions of academic writing.

In: *Studies in Higher Education* 45 (12), S. 2481–2496. DOI: 10.1080/03075079.2019.1616170.

#### Abstract:

This article explores the affordances, limitations and future potential of the Writing BASE, a heuristic tool designed to help academic writers identify their strengths and weaknesses in four foundational areas of their writing practice: behavioural, artisanal, social and emotional. After describing the development of the tool, we report on two separate but related studies based on the BASE rubric: (1) a statistical analysis of questionnaires completed by 500 advanced academic writers and (2) a

content analysis of 90 recent or classic academic writing guides. The findings from these two studies shed new light on the under-valued and frequently occluded role of positive emotions in the writing process.

Tamrat, Wondwosen; Teferra, Damtew (2020):

### Private higher education in Ethiopia. Risks, stakes and stocks.

In: *Studies in Higher Education* 45 (3), S. 677–691. DOI: 10.1080/03075079.2019.1582010.

#### Abstract:

Private higher education institutions operate amidst a litany of risks that can affect their operations and threaten their existence. This study was conducted to identify and analyze the nature and types of risks faced by Ethiopian private higher education institutions through the perspectives of their own academics. The findings revealed that the major types of risks faced by private higher education institutions relate to the broader areas of policy and regulation, financing, teaching and learning, infrastructure and resources, and research and outreach. Among others, the specific types of risks identified were found to be driven by the nature of institutional establishment and operations, resources available, and policies and regulations governing the private higher education sector. The study further established that, in addition to their contribution towards the strategic management of the sector, understanding the pattern and trends of risks is paramount to ensuring the survival—and advancement—of the fledgling private higher education sector in Ethiopia.

Tapanila, Katriina; Siivonen, Päivi; Filander, Karin (2020):

### Academics' social positioning towards the restructured management system in Finnish universities.

In: *Studies in Higher Education* 45 (1), S. 117–128. DOI: 10.1080/03075079.2018.1539957.

#### Abstract:

The invasion of managerialism in universities has changed the prerequisites for academic work. Decision making and control over academic work based on the expertise of academics have declined; in turn, managers have gained more decision-making power. Our study's target group comprises academics representing educational sciences in two Finnish universities, where large managerialist reforms have been carried out. We explore how the academics positioned themselves towards the new management system based on managerialism. In the analysis of our qualitative work welfare survey data, we applied a narrative-discursive approach. The positionings traced in the analysis ranged from resistance to managerialism to desire for strong management. The new management system was regarded as problematic because it was perceived as neglecting traditional academic ideals. We conclude that increased managerial control, accompanied by many administrative duties, may disturb the basic work of academics and therefore decrease the quality of research and teaching in universities.

Taylor, Chris; Fox, Stuart; Evans, Ceryn; Rees, Gareth (2020):

### The 'civic premium' of university graduates. The impact of massification on associational membership.

In: *Studies in Higher Education* 45 (7), S. 1351–1366. DOI: 10.1080/03075079.2019.1637837.

#### Abstract:

Considerable attention has been paid to the economic benefits of participating in higher education, particularly the 'economic premium' of graduates compared to non-graduates. Although the civic contribution of graduates has been widely acknowledged and discussed, there has been a dearth of empirical analysis that investigates this contribution. Furthermore, the massification of higher education in the UK, US, and many other countries, has had profound impacts on the higher education experience. But little is known about how changes to the form and function of mass higher education have impacted on the civic contribution of university graduates. This research attempts to address this by focussing specifically on associational membership of university graduates during their early adulthood. By calculating the 'civic premium' of UK graduates compared to their non-graduate peers over time we are able to explore the relationship between associational membership and higher education participation following the massification of UK higher education.

Tierney, Anne (2020):

The scholarship of teaching and learning and pedagogic research within the disciplines. Should it be included in the research excellence framework?

In: *Studies in Higher Education* 45 (1), S. 176–186. DOI: 10.1080/03075079.2019.1574732.

*Abstract:*

This paper is a response to Cotton, Miller and Kneale's 2017 paper on the current state of higher education research within UK universities. It seeks to contribute to the debate surrounding the inclusion of pedagogic research (PedR) via SoTL in the UK's Research Excellence Framework (REF) in the context of researchers who reside within a disciplinary context. The inclusion of PedR in the REF continues to be contentious, despite recommendations in the Stern Report which could make its inclusion more feasible. This paper focuses on PedR which is conducted, published and disseminated by academics situated within Life Science departments, rather than Schools of Education. The twenty-one teaching-focused academics in this study discussed their commitment to PedR integral to their academic identity, the challenges they faced in carrying out PedR, and their thoughts on REF 2014. Their opinions and conclusions give food for thought on decisions regarding inclusion of PedR in REF 2021.

Towers, Angela; Towers, Neil (2020):

Re-evaluating the postgraduate students' course selection decision making process in the digital era.

In: *Studies in Higher Education* 45 (6), S. 1133–1148. DOI: 10.1080/03075079.2018.1545757.

*Abstract:*

The paper explores how postgraduate students make course selection decisions in the digital era. An exploratory study with seven postgraduate student focus groups (UK, EU and International) gained a detailed insight into this important change. The availability of information, from an increased use of digital media had a significant impact on Higher Education postgraduate decision-making. The results found a circular decision-making approach with evidence of rational and emotional decisions where students do not always commence with a wide choice set. Online forums, Word-of-Mouth/electronic Word-of-Mouth from past/existing students, family and friends are important influencers, as students considered postgraduate study from one month to four years prior to starting a course. We identified 5 different application pattern categories, together with highlighting the importance of evaluating the students' pre-purchase experience during the application process. The research highlights the need for universities to continually engage during the decision-making process and to evaluate pre-purchase experiences.

Trebilcock, Philip; Nanere, Marthin (2020):

The myth of a homogeneous Indonesia. Differing Indonesian ethnic perceptions of Australian international education.

In: *Studies in Higher Education* 45 (3), S. 608–621. DOI: 10.1080/03075079.2019.1665008.

*Abstract:*

This paper examines the international education market and Australia's significant and growing involvement. Whilst much research has been carried out, it is less common for this research to be undertaken from the perspective of those who have yet to make the decision to study abroad. This study examines Indonesia, which was once a prominent source country for Australian international students. Student intention to study in Australia is examined through the Theory of Planned Behavior. Both qualitative and quantitative studies identify several factors influencing students' study intentions. Significantly, this study explores the concept that cultural ethnicities may be a better indicator of student intention, than the commonly held demarcation of political boundaries. Using Indonesia as an example, it is shown that country alone may not always be the best indicator of a homogeneous unit that demonstrates similar homogenous cultural traits. This has implications for all marketers of international education.



Trott, Carlie D.; Sample McMeeking, Laura B.; Weinberg, Andrea E. (2020):

Participatory action research experiences for undergraduates. Forging critical connections through community engagement.

In: *Studies in Higher Education* 45 (11), S. 2260–2273. DOI: 10.1080/03075079.2019.1602759.

*Abstract:*

Embedded within ongoing university-community partnerships, participatory action research experiences for undergraduates – or PAR-based UREs – are multi-disciplinary, action-oriented research opportunities that engage undergraduates in collaborative research to address community-defined challenges. PAR-based UREs integrate participatory action research (PAR), a practice of social scientists, with undergraduate research experiences (UREs), a widespread and well-funded tradition in STEM (science, technology, engineering, and mathematics) fields. PAR-based UREs offer a promising avenue towards fostering constructive university-community relations, while positioning undergraduate students to be competent researchers and critical change agents in collaboration with communities. This theoretical discussion introduces the concept and practice of PAR-based UREs by: (1) reviewing ‘traditional’ PAR and URE arrangements as separate entities; (2) offering a theoretical rationale for their integration; and (3) describing the formation, organization, and outcomes of a PAR-based URE pilot program, which underscores the need for a coordinated approach towards benefiting – and reconnecting – students, communities, universities, and the public.

Tsaousi, Christiana (2020):

That’s funny ... you don’t look like a lecturer! Dress and professional identity of female academics.

In: *Studies in Higher Education* 45 (9), S. 1809–1820. DOI: 10.1080/03075079.2019.1637839.

*Abstract:*

This paper focuses on how female academics in UK universities use dress to construct their professional identity. The paper draws on the current literature on dress, body and academic identity and uses a theoretical framework of Goffman’s work of performance and Bourdieu’s concepts of cultural capital and habitus to explore these women’s attempts to construct themselves as professionals. The aim of this paper is to give insights into these women’s perceptions of ‘what it takes to dress to impress’ for the ‘professional project’ within a constantly shifting university workplace environment. The themes of analysis include issues such as the challenges of being a female academic and establishing yourself in the class, using dress to establish a feeling of belonging in the department and institution as a whole and a critique of how the various aspects of dress are incorporated in this idea of visual gratification of the ‘consuming’ students.

Tymon, Alex; Harrison, Charlotte; Batistic, Sasa (2020):

Sustainable graduate employability. An evaluation of ‘brand me’ presentations as a method for developing self-confidence.

In: *Studies in Higher Education* 45 (9), S. 1821–1833. DOI: 10.1080/03075079.2019.1602757.

*Abstract:*

This paper evaluates ‘brand me’ presentations as a method for developing employability-related self-confidence (ERSC). Measurements of ERSC were taken at three points in time from a sample of 105 full-time business and law students at a UK university. These were analysed alongside student feedback, assessment artefacts, and semi-structured interviews with students and lecturers. Findings indicate that ERSC increases over time, skills are learnt, and new behaviours are developed. We contribute to sustainable graduate employability literature by empirically demonstrating theoretically proposed links between career management learning and ERSC. Furthermore, we show that self-confidence may be a situated behaviour, rather than a fixed trait, which generates practical suggestions for career management teaching. We join the teaching excellence debate by demonstrating a method to measure learning gain in higher education. We also add to research methods knowledge by adapting an evaluation framework from the Human Resource Development field for use in this context.

van Herpen, Sanne G. A.; Meeuwisse, Marieke; Hofman, W. H. Adriaan; Severiens, Sabine E. (2020):

**A head start in higher education. The effect of a transition intervention on interaction, sense of belonging, and academic performance.**

In: *Studies in Higher Education* 45 (4), S. 862–877. DOI: 10.1080/03075079.2019.1572088.

*Abstract:*

Given the challenging transition from secondary school into higher education, this quasi-experimental study measured the effects of a pre-academic programme (i.e. before starting at university) on student–faculty interactions, student–peer interactions, sense of belonging, and first-year academic performance. Fifty-eight first-year students participated in a pre-academic programme (i.e. the experimental group) focused on changing their perceptions of effective learning behaviour to enhance high-quality interaction with peers and faculty, their sense of belonging, and academic performance. A control group comprised 237 first-year students who did not attend the programme. Participation in the programme enhanced formal student–faculty and student–peer interactions, as well as informal student–peer interactions. No effect was found on sense of belonging. Furthermore, participation in the programme enhanced students’ attained grade during the first course and enhanced their first-year cumulative GPA. The results suggest that participation in the pre-academic programme could give students a head start in higher education.

Vaughn, Ashley R.; Taasobshirazi, Gita; Johnson, Marcus L. (2020):

**Impostor phenomenon and motivation. Women in higher education.**

In: *Studies in Higher Education* 45 (4), S. 780–795. DOI: 10.1080/03075079.2019.1568976.

*Abstract:*

This article analyses the relationship between impostor phenomenon and motivation in academic women. These highly successful academics often express feelings of self-doubt, lack of belongingness, and incompetence, ideas echoed within motivation literature. This project establishes IP prevalence within 1,326 self-identified academic women and examines the relationship between IP and motivation (operationalized by measures from Expectancy-Value Theory, Attribution Theory, and Self-Determination Theory). Findings indicate elevated levels of IP amongst our female academic sample. Statistically significant relationships were observed between IP and measures of motivation, including negative relationships between IP and sense of relatedness, as well as IP and attributions of success and failure. Results also indicate a combination of feelings of competence and relatedness, attributions to luck, ability, ease, and effort, and both cost and utility values predict 57.6% of the variance in IP sum score. Implications for graduate and early career supports, as well as systemic and cultural changes are discussed.

Veer-Ramjeawon, Poonam; Rowley, Jennifer (2020):

**Embedding knowledge management in higher education institutions (HEIs). A comparison between two countries.**

In: *Studies in Higher Education* 45 (11), S. 2324–2340. DOI: 10.1080/03075079.2019.1608431.

*Abstract:*

Previous research on knowledge management in universities has focused mainly on a single country. This research contributes by exploring the understanding of senior managers and academics involved in research/and research management and comparing the three KM processes in two countries, Mauritius and South Africa, one with a small and developing higher education sector and the other with a relatively well-developed higher education sector. Data were obtained through semi-structured interviews with key informants from thirteen HEIs from Mauritius and South Africa. The three KM processes adopted in the two countries had a lot of similarity with only a few differences. This article builds a profile of the similarities and differences between the two countries, and develops models of KM processes. This comparison acts as a basis for recommendations for improving research practices in HEIs and as a basis for innovation in the less developed country.

Vetter, Matthew A. (2020):

**Broadening representations of rhetoric in Wikipedia. Disciplinary praxis as graduate pedagogy and research (7682) [sic!].**

In: *Studies in Higher Education* 45 (5), S. 990–1002. DOI: 10.1080/03075079.2020.1749798.

*Abstract:*

Research in rhetoric and writing has found that Wikipedia-based education allows for direct and transparent observation of practices and concepts related to writing process, research, social collaboration, and digital rhetoric while also providing opportunities for authentic writing situations. However, much of this literature has been focused on undergraduate applications. To expand this scholarship, this article centers on pedagogical applications for Wikipedia-based practices in doctoral education. Drawing from two methodologies, participatory action research and teacher research, and utilizing a method of collaborative reflective inquiry for the collection of data, this study examines graduate students' reflective writing regarding their experience with a Wikipedia-based assignment. Qualitative analysis provides insight into students' understanding of Wikipedia editing as a form of disciplinary praxis and teacher training that enables expansion of academic knowledge in the encyclopedia, while also highlighting specific challenges related to this form of pedagogy. Finally, this article offers specific recommendations for Wikipedia-based education and suggests avenues for future research.

Vienni Baptista, Bianca; Rojas-Castro, Silvia (2020):

**Transdisciplinary institutionalization in higher education. A two-level analysis.**

In: *Studies in Higher Education* 45 (6), S. 1075–1092. DOI: 10.1080/03075079.2019.1593347.

*Abstract:*

In this paper, we focus on the institutionalization of transdisciplinarity (TD) in higher education institutions and how they institutionalize Transdisciplinarity (TD). As such, universities have engaged in different activities to enact TD policies that aim at incorporating TD in their research and teaching. We take the Methodology Center at the Leuphana University of Lüneburg as a case study. We analyze the institutionalization process of TD to shed light on the obstacles that TD faces to become a widespread policy and practice at universities. In adopting a neo-institutionalist approach in our research, we develop a two-level analysis that allow us to compare the formal characteristics given to TD policies with the actual TD practices taking place in universities. Our findings reveal that TD institutionalization at the Methodology Center is at a mid-level and that overall TD institutionalization is an iterative process, in which the two levels mutually can reinforce or hinder each other.

Wald, Navé; Golding, Clinton (2020):

**Why be a head of department? Exploring the positive aspects and benefits.**

In: *Studies in Higher Education* 45 (11), S. 2121–2131. DOI: 10.1080/03075079.2019.1578736.

*Abstract:*

The academic department is a key administrative unit in universities, and so heading, or chairing, a department is a key role. However, it is also known to be a challenging role and academics are often reluctant assume this position. Despite its importance, the head's role has not received sufficient academic attention and needs further exploration. Existing research tends to focus on how to be an effective head and overcome common challenges, but it tends to ignore the benefits of being a head. In this qualitative study, therefore, we deliberately asked former heads about the positive aspects of their experience. Participants identified a raft of benefits associated with the role; some were limited to their tenure as head while others were long-lasting. Explicitly identifying what is positive about the head's role may encourage faculty members to consider themselves as potential leaders, and be used to enhance programmes of leadership development.

Walkington, Helen; Stewart, Kearsley A.; Hall, Eric E.; Ackley, Elizabeth; Shanahan, Jenny Olin (2020):

Salient practices of award-winning undergraduate research mentors. Balancing freedom and control to achieve excellence.

In: *Studies in Higher Education* 45 (7), S. 1519–1532. DOI: 10.1080/03075079.2019.1637838.

*Abstract:*

This paper contributes to research on teaching excellence by extending the current body of literature pertaining to mentoring pedagogies in undergraduate research settings across diverse social, institutional and disciplinary contexts. Our data comes from in-depth interviews with 32 international faculty who have received excellence awards for undergraduate research mentoring. The data reveal a freedom – control dialectic, illuminating the ways in which expert mentors negotiate the desire to create opportunities for students to experience freedom and creativity in research, yet maintain control over the topic, quality and outcomes. The research findings reveal a defining characteristic of award-winning mentors as an ability to establish and sustain a sense of challenge, while maintaining meaningful engagement and a sense of achievement amongst students. The findings show the importance of tailoring practice to the needs of particular student groups, and there are implications for institutional resourcing, as well as mentor training and development.

Ward, Anne Marie; Brennan, Niamh M. (2020):

Developing a student-doctoral education fit analytical model to assess performance.

In: *Studies in Higher Education* 45 (7), S. 1448–1460. DOI: 10.1080/03075079.2018.1545758.

*Abstract:*

Understanding factors that cause students problems throughout their doctoral education is of benefit to doctoral educators striving to improve doctoral completion rates. In this paper, Baker and Pifer's (2015, "Antecedents and Outcomes: Theories of Fit and the Study of Doctoral Education." *Studies in Higher Education* 40 (2): 296–310.) multidimensional framework of student-doctoral fit is extended to create a more nuanced framework comprising student-doctoral environment fit (including the sub-dimensions: student-organisation fit, student-private environment fit and student-people fit), student-vocation fit (including the sub-dimensions: student-motivation fit and student-learning environment fit) and student-doctoral culture fit (including the sub-dimensions: student-learning identity fit, student-(academic)writing fit and student-personal characteristics fit). We then operationalise the framework to create a doctoral student education fit analytical framework for providing insights on the association between fit and doctoral student performance. Our analytical model provides a springboard for fieldwork to examine student-doctoral education fit and doctoral student performance.

Warikoo, Natasha; Allen, Utaukwa (2020):

A solution to multiple problems. The origins of affirmative action in higher education around the world.

In: *Studies in Higher Education* 45 (12), S. 2398–2412. DOI: 10.1080/03075079.2019.1612352.

*Abstract:*

How and when does affirmative action emerge in different national contexts? This paper is the first to analyze the emergence of affirmative action in higher education across national contexts. We find that three distinct clusters of affirmative action policies developed historically: (1) early nation-building projects, (2) mechanisms to attenuate social inequality in response to identity-based social movements, and (3) twenty-first century 'indirect' affirmative action policies. These clusters differ not only in the goals of their affirmative action policies, but also in how those policies are implemented, and the circumstances under which they emerge, as we show. The findings suggest that once provisions for underrepresented groups becomes part of the repertoire of actions universities or countries can take to solve a variety of national and university problems, affirmative action develops as a means to further a variety of organizational and national goals.

Webb, Andrew; Sepúlveda, Denisse (2020):

Re-signifying and negotiating indigenous identity in university spaces. A qualitative study from Chile.

In: *Studies in Higher Education* 45 (2), S. 286–298. DOI: 10.1080/03075079.2018.1512568.

*Abstract:*

This article draws on life history interviews with Indigenous university students in Chile to demonstrate the ways these young people re-signify and negotiate their participation in higher education. International scholarship has emphasized the unequal conditions for minority groups to access higher education, but attention also needs to be given to the ways students forge new identity pathways for themselves within these racialized environments. Our analysis utilizes LatCrit studies to emphasize how marginal and hybrid identities enable forms of resistance and counter-narratives to dominant (white) ideologies and assimilatory practices. We focus on the concept of community cultural wealth and the empowerment that aspirational and resistant capital can give to Indigenous youth, providing alternative motives for their studies in relation to the Indigenous communities to which they belong. The paper contributes to this scholarship by underscoring positive aspects of Indigenous student resistance and agency from an understudied context in Latin America.

Welch, Anthony (2020):

Of Worms and woodpeckers. Governance & corruption in East and Southeast Asian higher education.

In: *Studies in Higher Education* 45 (10), S. 2073–2081. DOI: 10.1080/03075079.2020.1823643.

*Abstract:*

The topic of governance is much discussed in the higher education literature. Corruption is less discussed, and mostly in general and cautionary terms. Yet there are important relations between the two. The current article critically examines the literature on governance in higher education and underlines the relationship to forms of corruption in the field. While much literature on corruption in education outlines regulatory practices, or Codes of Practice to limit its reach, the current analysis both reviews types of corruption in higher education, and illustrates them with actual examples from several systems of higher education in East and South East Asia. While corrupt practices in higher education are by no means unique to the region, (indeed examples can be found worldwide, in virtually every system), most rank poorly on conventional measures of transparency. The article advances our understanding of the complex and dynamic relationship between corruption and governance in higher education, in what is arguably the most dynamic world region.

Wentworth, Diane Keyser; Behson, Scott J.; Kelley, Catherine L. (2020):

Implementing a new student evaluation of teaching system using the Kotter change model.

In: *Studies in Higher Education* 45 (3), S. 511–523. DOI: 10.1080/03075079.2018.1544234.

*Abstract:*

Kotter's (1996. *Leading Change*. Boston, MA: Harvard Business School Press) model is one of the most frequently cited guides for implementing planned organizational change. While this model is widely used across many industries and contexts, including higher education, there are few research studies and cases that provide in-depth information on the applicability and potential of this model to inform successful change initiatives. In this paper, we describe how we used Kotter's model as a guide when embarking on a multi-year effort to change our university's system for student evaluation of teaching. This change involved a shift in both instrument and technology and involved dozens of stakeholders in a complex and changing environment. Our case provides an example of how Kotter's model can be helpful in implementing change on a variety of initiatives within institutions of higher education. Limitations and implications for both research and practice are discussed.

Werker, Claudia; Ooms, Ward (2020):

Substituting face-to-face contacts in academics' collaborations. Modern communication tools, proximity, and brokerage.

In: *Studies in Higher Education* 45 (7), S. 1431–1447. DOI: 10.1080/03075079.2019.1655723.

*Abstract:*

Prior analyses of face-to-face contacts in collaborations have focused on one substitute only. Instead, we analyse various potential substitutes for face-to-face contacts in collaborations. Based on 45 interviews with academics from five leading European universities of technology our findings show that face-to-face contacts are closely intertwined with other mechanisms of coordination and communication for collaboration, particularly modern communication tools, proximity, and brokerage. Generally, to add personal and social proximity to their collaborations academics in our sample rely on face-to-face contacts. In their relationships with industrial partners, face-to-face contacts remain crucial to overcome cognitive and organizational distance. Yet when working with their peers, a number of partial substitutes for face-to-face contacts exist, knowingly combinations of temporary geographical proximity and modern communication tools. Moreover, PhD students can play a crucial role as junior brokers, overcoming a lack of face-to-face contacts between partners jointly supervising them while working in different locations.

Wilkesmann, Uwe; Lauer, Sabine (2020):

The influence of teaching motivation and New Public Management on academic teaching.

In: *Studies in Higher Education* 45 (2), S. 434–451. DOI: 10.1080/03075079.2018.1539960.

*Abstract:*

Based on two surveys of German university professors that were conducted in 2009 and 2016–2017, this article asks if the influence of teaching motivation on the importance attached to methods of instructional design has changed with the implementation of New Public Management. Using Self-determination Theory and the concept of transformational and transactional governance, three hypotheses were tested via regression analyses. Whereas intrinsic motivation is the strongest predictor for the importance attached to methods of instructional design in both surveys, the impact of identified teaching motivation has only become statistically relevant since 2016–2017. Albeit weak in impact, the transactional and transformational modes of governance also gained influence in 2016–2017. However, a comparison of means reveals that feelings of guilt when neglecting one's teaching duties have considerably increased from 2009 to 2016–2017, while more autonomous forms (intrinsic, identified) of teaching motivation have remained unchanged.

Wise, Graham; Dickinson, Connie; Katan, Tuntiak; Gallegos, Maria Cristina (2020):

Inclusive higher education governance. Managing stakeholders, strategy, structure and function.

In: *Studies in Higher Education* 45 (2), S. 339–352. DOI: 10.1080/03075079.2018.1525698.

*Abstract:*

Indigenous higher education governance is a fundamental element of diversity, equality and inclusivity at universities with significant indigenous student populations or stakeholder communities. Management approaches to establish inclusive governance mechanisms are complex and little guidance exists to support university managers to establish indigenous advisory councils. We document the creation of a university indigenous advisory council incorporating 11 indigenous nationalities. We assess the outcomes of that establishment process with the analytical lenses of participation and inclusion; accountability and rule of law; non-discrimination and equality; transparency; and mutual trust and respect. This study provides higher education policy researchers and university managers and with a clear roadmap to establish robust indigenous university governance. In doing so, we aim to empower indigenous leaders to create positive impact in higher education, contributing to high quality education and research for indigenous students and communities.

Woolcott, Geoff; Keast, Robyn; Pickernell, David (2020):

**Deep impact. Re-conceptualising university research impact using human cultural accumulation theory.**

In: *Studies in Higher Education* 45 (6), S. 1197–1216. DOI: 10.1080/03075079.2019.1594179.

**Abstract:**

Measuring impact from university research is increasingly seen as important, not least because of its use in resource allocation processes by governments. These measurement approaches, however, often take 'wide and shallow' economic effect-based views that are ex-post, linear and uni-directional. Consequently, research collaborations between universities and external stakeholders are often ignored, particularly when stakeholders are local or community-based and the research focus is on social rather than purely economic ends, because impacts of these projects are less easily measured, and are more likely to have narrower (though deeper) effects spatially. Using an illustrative case study, this paper shows that there are mechanisms able to measure broader concepts of impact, specifically ones where impacts also occur through the PROCESS of undertaking the research itself (as opposed to just as a RESULT of it), highlighting ways in which this type of analysis could be utilised for future evaluation of research collaborations.

Woolhouse, Clare; Albin-Clark, Jo; Shirley, Ian; Webster, Maggie (2020):

**Collaborative research as community learning in a higher education context, or 'what would Rod Stewart do?'**

In: *Studies in Higher Education* 45 (3), S. 477–491. DOI: 10.1080/03075079.2019.1630808.

**Abstract:**

This paper is a reflective study of a collaborative research experience involving four colleagues. We discuss our experiences to consider how to develop a supportive collegial relationship at a time when working in higher education is often framed as competitive and focused upon defined 'outputs'. To make the analysis we explore the role of language in positioning us as Foucauldian subjects, we consider how self-identity is visually and orally produced within the sharing of life history narratives and personal inventories, and we reflect upon how we navigated the research process together, in particular noting the importance of our humorous invocation of the 1970s pop idol Rod Stewart to counter tensions. This article contributes to an emerging area of research that identifies a need for ethical approaches to co-working within academic circles. We conclude by reflecting on what we can offer to other academics.

Wragg, Nicole (2020):

**Online communication design education. The importance of the social environment.**

In: *Studies in Higher Education* 45 (11), S. 2287–2297. DOI: 10.1080/03075079.2019.1605501.

**Abstract:**

Traditions associated with the physical studio in design education have obstructed translation to an online model. Literature on design pedagogy reveals the studio is considered essential for design education. This perception can be traced to the atelier model in the fine arts, in which students practised under a master. This method also underpinned the early twentieth-century development of design curriculum at the Bauhaus, whose mission was to unite art and industry. This paper examines the essential attributes of the traditional design studio alongside current on-campus experience to better understand studio dynamics. I argue that, while teaching design in an online environment may be complex, it is possible. Barriers to online design education relate to the traditional studio experience, which differs to the contemporary on-campus design studio. Only through in-depth consideration of the current context can an equivalent online learning environment and community of practice occur.

Wyatt, Liam (2020):

**Endless palimpsest. Wikipedia and the future's historian.**

In: *Studies in Higher Education* 45 (5), S. 963–971. DOI: 10.1080/03075079.2020.1749793.

*Abstract:*

The theory and practice of Wikipedia has a common heritage with professional history. In spite of the project being very new, the number and variety of its authors and the ambivalence of academia towards it, Wikipedians have created an encyclopedia that upholds high standards of scholarship and encyclopedism. Simultaneously it provides universal easy access to knowledge. The policies and practices enacted by Wikipedia to achieve these standards are rarely unique. Facing the same challenges that encyclopedists, lexicographers, translators, librarians and archivists have before, it does not achieve a uniformly high standard but it is a new chapter in a very old book. This paper uses Wikipedia's articles to highlight practical means by which historians might engage with the project as a historical source and still maintain professional standards. Discussion pages, several associated paratexts and the statistics demonstrating article popularity are considered. Finally, there is a discussion about how historians can be directly involved in the Wikipedia project – by editing it.

Yousaf, Anish; Mishra, Abhishek; Bashir, Makhmoor (2020):

**Brand trust, institutional commitment, and their impact on student loyalty. Evidence for higher education in India.**

In: *Studies in Higher Education* 45 (4), S. 878–891. DOI: 10.1080/03075079.2018.1558441.

*Abstract:*

Oversupply of higher education services in emerging countries, like India, implies an ever-increasing cost of student acquisition despite large student populations. Hence, creating trust through effective service delivery supported with full institutional commitment remains the only way to create student loyalty and bring the subsequent acquisition costs down. This study investigates the impact of four dimensions of brand trust, namely reliability, credibility, benevolence and integrity, on students' loyalty, and the mediating role played by institutional commitment for this relationship. Results show that reliability is the strongest direct determinant of loyalty followed by integrity, while benevolence can lead to loyalty only if the commitment is evident. These, as well as other interesting findings, have direct implications for top management/administrator of a higher education institute (HEI) in the form of specific emphasis to elements of trust for creating higher student loyalty.

Yun, Heoncheol; Park, Sanghoon (2020):

**Building a structural model of motivational regulation and learning engagement for undergraduate and graduate students in higher education.**

In: *Studies in Higher Education* 45 (2), S. 271–285. DOI: 10.1080/03075079.2018.1510910.

*Abstract:*

Student motivation is widely recognized as a positive influence on engagement and learning in higher education. This study tested the structural relationships between motivational regulation strategies (MRSs) and engagement moderated by academic level (undergraduate and graduate) and learning environment (classroom and online). A total of 252 undergraduate and graduate students participated in the study. Confirmatory factor analysis confirmed the construct validity of the measurement and the measurement model validity. The two-step structural equation modeling was employed to examine the structural model validity and relationships between MRSs and engagement moderated by academic level and learning environment. The results indicated that (1) interest enhancement and environmental control are significantly linked to behavioral engagement, and (2) interest enhancement, goal orientation, and behavioral reinforcement are significantly associated with both emotional engagement and cognitive engagement. In addition, student academic level was found to be a significant factor that moderates the relationship between MRSs and engagement.

Zhao, Kai (2020):

**Made in contemporary China. Exploring the national identity of Chinese international undergraduate students in the US.**

In: *Studies in Higher Education* 45 (12), S. 2451–2463. DOI: 10.1080/03075079.2019.1615046.



*Abstract:*

Given the critical dynamics between students' national identity and study abroad experiences, this study explores the meanings Chinese international students in the US make of national identity within the context of China's rise on the world stage. Drawing on qualitative interviews with 23 Chinese undergraduate students studying at a US research public university, this study demonstrated how cultural values, patriotic education received in China, and experiences in the US influenced students' understandings of national identity. Students' identities of being Chinese were renegotiated resulting from meaningful intercultural interactions. Contrary to the conventional wisdom that Chinese international students lost their national identity abroad, findings documented a heightened sense of national identity and increased patriotism among Chinese intentional students. The case of Chinese international undergraduate students adds to the existing literature on the impact of study abroad on identity development and extends the use of neo-nationalism in higher education research.

## Specials

### Corrigendum.

[Correction] (2020). In: *Studies in Higher Education* 45 (1), S. 232–233.

*Abstract:*

Bretag, T., R. Harper, M. Burton, C. Ellis, P. Newton, P. Rozenberg, S. Saddiqui, and K. van Haeringen. (2018). Contract cheating: a survey of Australian university students. *Studies in Higher Education*.  
<https://doi.org/10.1080/03075079.2018.1462788>

When the above article was first published online, the values in Table 2 and in the text related to them were not accurate. The correct table and related text can be found below: [...]

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## Editorials

Melo, Ana I.; Figueiredo, Hugo (2020):

Performance management and diversity in higher education. An introduction.

[Editorial]. In: *Tertiary Education and Management* 26 (3), S. 247–254. DOI: 10.1007/s11233-019-09044-x.

Papadimitriou, Antigoni (2020):

Beyond rhetoric. Reinventing the public mission of higher education.

[Editorial]. In: *Tertiary Education and Management* 26 (1), S. 1–4. DOI: 10.1007/s11233-019-09046-9.

## Original Articles

Andreadakis, Zacharias (2020):

Public mission under scarcity. Behavioral insights into Greek higher education.

In: *Tertiary Education and Management* 26 (1), S. 91–104. DOI: 10.1007/s11233-019-09042-z.

*Abstract:*

Relying upon the heuristic presuppositions of behavioral economics, this study seeks to offer an expanded analysis of the public mission mandate of the Greek higher education sector. The examination outlines and parses qualitative evidence issued from the Greek Ministry of Education, and in particular from the hitherto untranslated document A Strategy for Higher Education in Greece: 2016–2020, in conjunction with a growing body of scholarship on the challenges of cultivating public trust in the Greek social landscape. The discussion negotiates the position of the Greek higher education system as a system of sustainable social prosperity and argues that its operational conditions of financial scarcity may entail broader and inadvertent ramifications, namely, the depletion of cognitive resources and the propagation of narrow mental frames in the pursuit of a public mission.

Berghaeuser, Hendrik; Hoelscher, Michael (2020):

Reinventing the third mission of higher education in Germany. Political frameworks and universities' reactions.

In: *Tertiary Education and Management* 26 (1), S. 57–76. DOI: 10.1007/s11233-019-09030-3.

*Abstract:*

Higher education systems are changing due to trends of funding pressures, increasing social demands and growing numbers of students. Even though teaching and research are still considered as the pivotal functions of universities, other activities such as technology transfer, lifelong learning or social engagement have broadened the scope of their actions. These activities, labelled as third mission, are supposed to strengthen the impact of science in society and epitomize the changing role of universities. In Germany, the federal government and the states announced different programs aiming to foster these activities, e.g. the “Innovative Hochschule” or Real-world Laboratories. In this article, we first want to develop a definition framework of third mission. In two further steps we analyze how politics and policies in Germany have framed the concept in the last few years and how public universities are responding to this in their formal structure. We use approaches of neo-institutional theory according to which organizations such as universities create institutionalized structures and reflect institutional rules in order to maintain legitimacy. As an example of organizational formal structure we analyze mission statements of public universities. Using computer-based qualitative content analysis, we assess to what extent these universities take up the third mission. Our results show that most universities mention the third mission in their mission statements. However, the focus is mainly limited to economic impact and (technical) knowledge transfer. Much less emphasis is put on civic engagement or further education issues.

Biscaia, Ricardo; Melo, Ana I.; Machado, Isabel; Figueiredo, Hugo; Rosa, Maria João; Rocha, Paula (2020):

**Performance indicators for research and cultural creation activities in polytechnic higher education institutions. A consensus building approach.**

In: *Tertiary Education and Management* 26 (3), S. 281–294. DOI: 10.1007/s11233-019-09035-y.

*Abstract:*

This article presents a set of performance indicators based on the Portuguese case for managing the performance of research and cultural creation activities and their impact on the regional context in polytechnic higher education institutions. Five theoretical dimensions have been proposed and empirically validated to frame the diversity of these activities and, for each one of them, a set of performance indicators (which total 29) was defined. The Delphi technique was applied to reach consensus among specialists (polytechnic higher education institutions’ presidents) on the performance indicators; two rounds of the technique application have led to a final set of indicators (comprising 23 indicators). The final set of performance indicators emerged as valid to actually be used by polytechnic higher education institutions, not only as a self-instrument to assess and improve their performance, but also as a management tool allowing the institutions to establish goals, define their own profile and the strategies to achieve it.

Borden, Victor M. H.; McCormick, Alexander C. (2020):

**Accounting for diverse missions. Can classification systems contribute to meaningful assessments of institutional performance?**

In: *Tertiary Education and Management* 26 (3), S. 255–264. DOI: 10.1007/s11233-019-09045-w.

*Abstract:*

Although they have been developed for a variety of purposes, classification systems for tertiary or postsecondary education institutions offer a foundation for recognizing diverse institutional missions in policy, research, and practice. Diverse missions, in turn, are important to achieving broad societal goals of educating an increasingly diverse array of learners, contributing to scientific, technological and professional development, and addressing increasingly complex social issues in an increasingly interconnected global community. After reviewing the purposes and consequences, intended and unintended, of several popular classifications, this article addresses the potential for current or future classification systems to promote and support institutional differentiation. Specifically, we consider how appropriately designed classifications can properly recognize mission differentiation and assess the future prospects for contextualizing performance and accountability assessments through the lens of classification.

Borkoski, Carey; Prosser, Sherri K. (2020):

**Engaging faculty in service-learning. Opportunities and barriers to promoting our public mission.**

In: *Tertiary Education and Management* 26 (1), S. 39–55. DOI: 10.1007/s11233-019-09033-0.

**Abstract:**

Community engagement has been defined as a collaborative enterprise between higher education institutes and external communities where stakeholders can experience and benefit from a mutually beneficial knowledge exchange. A researcher examined a Research 1 university faculty's perception of community engagement in the form of service-learning and implemented an online community of practice for faculty and community members to increase the faculty's use of service-learning. The findings revealed that, although faculty see many benefits in implementing service-learning and report interest in learning about and using this pedagogy, service-learning practices are still considered an addition to faculty workloads rather than an integrated and expected role. The faculty reported concerns about the mixed messages within the institution around the value of their investment in this practice, including the lack of recognition in promotion and their feelings around professional obligations particularly related to research publications. Although faculty described teaching as equally important to research, they also perceived that the institution valued teaching and service as less important than research. Consistent with extant literature, this research provides evidence that community engagement activities need to be embedded in faculty roles and rewards to become institutionalized. Implications for practice and research will be discussed.

Braun, Edith; Spexard, Anna; Nowakowski, André; Hannover, Bettina (2020):

**Self-assessment of diversity competence as part of regular teaching evaluations in higher education. Raising awareness for diversity issues.**

In: *Tertiary Education and Management* 26 (2), S. 171–183. DOI: 10.1007/s11233-019-09047-8.

**Abstract:**

Higher education institutions face the challenge to promote diversity competence. We suggest a procedure which can help raise awareness for diversity issues amongst staff and students and thereby foster diversity competence and facilitate the implementation of diversity strategies within higher education institutions: to include a self-assessment tool regarding diversity competence in the regular teaching evaluation. In this research we complemented a well-established course evaluation tool that is widely used in Germany, the HEsaCom, by a new subscale measuring subjective gains in diversity competence. As part of regular teaching evaluations, 8700 questionnaires comprising the HEsaCom-scales and the new scale on diversity competence were collected in 1396 different seminars of a large university in Germany. Results show good reliabilities for all scales. From factor analysis, the new scale emerged as an additional subscale of the HEsaCom, with the established factor structure remaining unchanged. Students attending a cross-study course in which diversity had been a topic and students attending courses in which no participant had experienced social discrimination reported significantly higher diversity competence gains than students from the remaining courses. We discuss how higher education institutions can apply the questionnaire used in our study for their diversity management.

Clark, Paul; Chapleo, Chris; Suomi, Kati (2020):

**Branding higher education. An exploration of the role of internal branding on middle management in a university rebrand.**

In: *Tertiary Education and Management* 26 (2), S. 131–149. DOI: 10.1007/s11233-019-09054-9.

**Abstract:**

Although research on branding in higher education has grown, a specific focus on internal branding in this sector is still scarce. Brand support by mid-level administrative staff and deans is a key element in internal branding of a university. This study explores the extent to which internal branding contributes to this group's understanding of and engagement with a public institution's rebranding campaign. It identifies challenges and practice insights for practice for internal branding activities when engaging these internal stakeholders, linking to wider brand management theory and practice. A qualitative case study approach was employed to understand the effectiveness of internal branding holistically, and in context. In 2016, nineteen depth interviews were conducted with a range of mid-level administrators and deans including those at the student union, regional campuses, directors of departments, and deans of faculties and schools at a large Canadian university. The data was analysed using Nvivo qualitative data analysis software. On the basis of the results, it is apparent

that internal branding has a valuable role in relation to higher education brand management strategy. Results offer a holistic view of the rebranding process, and explore understanding of and engagement with the rebranding campaign. This paper addresses a gap in the public sector brand management literature and demonstrates theoretical and practical implications for improved understanding and brand management strategy.

Egorov, Aleksei; Leshukov, Oleg; Froumin, Isak (2020):

“Regional flagship” university model in Russia. Searching for the third mission incentives.

In: *Tertiary Education and Management* 26 (1), S. 77–90. DOI: 10.1007/s11233-019-09043-y.

*Abstract:*

This study seeks to explore the incentive factors that serve to instigate university engagement in the third-mission agenda based on evidence drawn from the Russian system of higher education. We pay special attention to how the split of natural and externally induced drivers of the third mission has changed from the Soviet era and up until the immediate modernity. Our analysis has shown that the balance of these two types of incentives never remained flat over the course of history as the Russian university system encountered and had to address different challenges and imperatives at various points in time. We have also found that, while federal initiatives have been adopted by the Russian state that have created a distinctive cohort of universities entrusted with comprehensively contributing to the socio-economic and innovative potential of their host localities as a top-priority task, the third-mission agenda is by no means reduced solely to this very group of institutions, as there are many other universities that are not directly expected to focus on the third mission, but which still favor pursuing proactive and fruitful collaborations with regional stakeholders as arguably representing one of the crucial factors in long-term university sustainability.

Highman, Ludovic (2020):

Remapping French higher education. Towards a multi-tiered higher education system?

In: *Tertiary Education and Management* 26 (2), S. 199–214. DOI: 10.1007/s11233-019-09052-x.

*Abstract:*

The global trend of increasing participation rates, coupled with regional goals to increase participation in higher education, such as the European Union’s Europe 2020 Strategy target of 40% of all young people to hold a tertiary education qualification by 2020, has led to a strain on public resources, and a review of funding priorities in mass higher education systems, in some cases prioritising funding towards an elite. Reforms within European higher education systems have been further prompted by the lacklustre performance of European higher education institutions in international university rankings. The paper aims to contextualise French reforms within the broader European Union agenda for the modernisation of higher education, and its focus on greater differentiation, in order to assess how this has been disseminated and translated in the French context, and how it breaks with the French egalitarian tradition. Through a policy document analysis of French and EU strategies for higher education and research and political communications and data extracted from the Ministry of Higher Education, Research and Innovation’s Excellence Initiatives scheme, the paper seeks to understand whether France is creating a multi-tiered higher education system for which no precedent has existed before. However, because of the sui generis structure of French higher education that makes it difficult to classify within the various structural models of higher education, policy implications for other countries will not be discussed. The French case will provide insights on the converging trends of globalisation, and the agency of institutional carriers such as the European Commission in interpreting and disseminating particular strategies.

Jongbloed, Ben; Kaiser, Frans; Westerheijden, Don F. (2020):

Improving study success and diversity in Dutch higher education using performance agreements.

In: *Tertiary Education and Management* 26 (3), S. 329–343. DOI: 10.1007/s11233-019-09055-8.

*Abstract:*

More and more governments have started to introduce elements of performance in the funding mechanisms for their higher education institutions. An example is a performance agreement: a contract signed between the funding authority

and an individual higher education provider. In the Netherlands, a policy experiment involving performance agreements was concluded in 2016. We analyse whether the agreements actually have helped achieve the goals of improving student completion rates, educational quality and increasing the diversity in educational offerings. We present some indicators relating to these goals and discuss what can be learned from the performance agreements experiment in the Netherlands.

Kallenberg, Ton (2020):

#### Differences in influence. Different types of university employees compared.

In: *Tertiary Education and Management* 26 (4), S. 363–380. DOI: 10.1007/s11233-020-09058-w.

##### *Abstract:*

Changes, improvements and innovations in university organisations regularly end up in sluggish processes and get stuck ‘somewhere’ in the organisation. It is argued that cooperation and mutual influencing of work processes between academic and professional employees of different departments can have a positive effect on these innovations. Because little is known about this mutual influence of work processes, research has been conducted on the extent of the experienced and desired influence on different types of university employees’ own work processes and the work processes of other departments. This article reports the results of a survey among different types of employees from universities from three different countries (the Netherlands, Flanders, Denmark), in which four groups of employees have been distinguished (academic staff, professional staff, academic middle managers and educational administrators). The results of the survey (N = 1397) show that the university may be seen as a patchwork in which departments and teams work independently of each other. A comparison between the groups shows that the academic middle managers and educational administrators do experience significant more influence on various processes. It is argued that these groups can play an important role during changes, improvements and innovation processes.

Larsen, Ingviold Marheim; Hofsføy, Mai-Lin; Yuan, Zheng Ørvim; Aasen, Petter (2020):

#### Performance agreements for clearer institutional profiles and better division of labour.

In: *Tertiary Education and Management* 26 (3), S. 311–327. DOI: 10.1007/s11233-019-09034-z.

##### *Abstract:*

Performance agreements in higher education are seen as a promising steering tool in many countries, including Norway. The aims of the performance agreements in Norwegian higher education are to enhance quality and diversity through clearer institutional profiles and better division of labour between institutions. An expert group that carried out an assessment of the funding system recommended the Norwegian Ministry of Education & Research to implement institutional multi-year performance agreements to enhance quality, diversity and cooperation. In 2016–17 the Ministry implemented an incremental process covering initially five plus other five pilot institutions. This article gives an overview of the context, process and framework of performance agreements at the national level as well as how this new steering tool is being handled in one of the pilot institutions. It focuses on the implementation process and is based on qualitative observations and written communication between the Ministry and the pilot institutions. Although, it is still too early to evaluate the results and the impact of performance agreements in Norwegian higher education, the experience so far indicates that it seems to be possible through negotiations between the Ministry and the institutions to strengthen the institutional profile by prioritizing goals and measures. The content in the pilot agreements differ and no obligatory indicators are part of the agreements. The incremental implementation process has limited the discussion on complementarity. Even though actions towards the division of labour between institutions are an important part of some of the agreements, this seems to be a more challenging task than profiling.

Larsen, Katarina (2020):

#### Managing the complexity of centres of excellence. Accommodating diversity in institutional logics.

In: *Tertiary Education and Management* 26 (3), S. 295–310. DOI: 10.1007/s11233-019-09053-w.

*Abstract:*

This article discusses how Centres of Excellence (CoE) and the existence of several logics in these centres can contribute to the differentiation of the strategic profiles of universities. The study sees research centres as a way to organize research activities in Higher Education Institutions (HEIs) in order to target both excellence but also societal challenges through focused thematic research. It reveals how societal challenges and their interpretation by these centres contribute to the differentiation of the strategic profiles of universities. Studies of centres of excellence programs in Sweden and Japan reveal differences in how their mission is formulated for relevance and excellence. The results indicate that contrasting missions of HEIs are accommodated through the dual logics of these centres relating both to autonomy and industry collaboration. The study shows that long-term funding gives these centres flexibility to set the agenda and focus on their strategic core activities. In other words, a logic of autonomy guides their strategic choices of research activities over the long-run as well as collaborators. Nevertheless, these centres are also developing strategies to cope with dilemmas stemming from the excellence-relevance and evaluation templates that emerge in the nexus of their collaborative ties with industry, government and universities.

Ndibuuza, Florence; Langa, Patricio (2020):

The tale of academic practice in a rising knowledge society. Focus on a university in South Africa.

In: *Tertiary Education and Management* 26 (1), S. 117–130. DOI: 10.1007/s11233-019-09036-x.

*Abstract:*

This paper is based on a study conducted to establish if academic practice in a university designated as Azania is aligning or diverting from the expectations of the rising knowledge society in South Africa. The paper is motivated by the emerging national needs specific to the production, dissemination and application of knowledge as the country takes steps towards knowledge led development. The general assumption is that academic practice in universities is spontaneously responding to the needs of its changing environment. Thus, to establish the position of academic practice in Azania, institutional and national documents were examined from a neo-institutional perspective through qualitative discourse analysis. The results showed that research, teaching and outreach at the University was responding to national needs. Thus, academic practice in Azania is aligning more than diverting from the expectations of the rising knowledge society. However, considering that the study based on only document analysis a focus on other data sources is recommended.

Oravec, Jo Ann (2020):

Academic metrics and the community engagement of tertiary education institutions. Emerging issues in gaming, manipulation, and trust.

In: *Tertiary Education and Management* 26 (1), S. 5–17. DOI: 10.1007/s11233-019-09026-z.

*Abstract:*

Community engagement has played central roles in tertiary education, expanding the potentials for academic as well as civic enhancement. Such efforts are often undertaken in part with the use of metrics, as tertiary education institutions attempt to reach various community audiences with quantitatively-supported defenses of their missions, through research analyses and publications, and with their participation in formal institutional ranking systems. However, dramatic expansions of the use of metrics and the importance of publications in academics have fostered gaming and manipulation practices designed to enhance artificially both individual and institutional reputations, including predatory journal administration, coercive citation, forced joint authorship, paper mill and ghostwriting efforts, H-index manipulation, creation of bogus documents, development of fraudulent academic conferences, and many others, as well as falsified research itself. As they emerge in the press or in watchdog reports, such questionable practices can disturb delicate negotiations concerning the respective roles of communities and academic institutions as well as be perceived by some community members as violations of trust. The practices can be especially harmful when associated with celebrity or “star” academics who often are granted substantial institutional leeway. This study maps an assortment of these emerging practices from a community engagement perspective; it also analyzes recent discourse as to the impacts the normalizations of these problematic practices are having on community-academic interactions. It discusses strategies toward making production and use of academic metrics and related research output less easily manipulated and more worthy of trust both by academic participants and the community as a whole.

Roessler, Isabel; Catacutan, Katrina (2020):

### Diversification around Europe. Performance measuring with regard to different missions.

In: *Tertiary Education and Management* 26 (3), S. 265–279. DOI: 10.1007/s11233-020-09057-x.

#### Abstract:

Existing university ranking systems blur differences between Higher Education Institutions because they only focus on research. The increased breadth, diversity and complexity of Higher Education Institutions' missions are repeatedly overlooked causing a low visibility to a wide audience. This paper demonstrates the possibilities to measure other missions such as international orientation and regional engagement. Therefore, the results of 618 Higher Education Institutions (Effective March 2016) in U-Multirank, an international university ranking, are used. The results show the impressive variety in the higher education systems among European regions. Every region found missions in which they effectively perform thus proving the importance of each mission. The multidimensional ranking takes into account the complexity of Higher Education Institutions' missions and capturing the relevance of Higher Education Institutions third mission's activities adequately. Transparency across all missions is the only possibility to make the performances honourable. As research is not the only remarkable mission of Higher Education Institutions, teaching is not the only necessary mission. When other missions are overlooked, the performance measurement systems hinder mission diversity in higher education.

Romanenko, Ksenia; Froumin, Isak (2020):

### University mergers in Russia from the students' perspective: uncertainty and loss of identity.

In: *Tertiary Education and Management* 26 (2), S. 233–245. DOI: 10.1007/s11233-019-09029-w.

#### Abstract:

University mergers are a common practice in higher education systems around the world. Merger-related aspects such as the transformation of organizational and administrative structures, the impact on the internal funding allocation mechanisms, or changes in academic strategies and profiles, are well researched. However, the role of students in university mergers and their understanding of these processes are hardly investigated. The aim of this study was to identify how students are affected by merger processes. Through the conceptual framework, integrating university organizational identity theory and studies of the human side of mergers and acquisitions, this article encompasses six institutional cases in Russian higher education. These cases were selected to illustrate different scenarios of university mergers and accordingly to analyze the variety of student experience in changing universities. The project's data included the results of document analysis, analysis of the merged universities' representation in the public space, interviews and focus-groups with university administrators and with students who studied during the process of university merger. It highlights such perceived effects of mergers as anxiety and perceived unfairness due to post-merger changes, activation of we-they opposition between the students of merged universities, loss or transformation of organizational identity, and clash of university cultures.

Rosa, Maria João; Cardoso, Sónia; Videira, Pedro (2020):

### Is accreditation 'on the right track'? The views of Portuguese academics.

In: *Tertiary Education and Management* 26 (2), S. 185–197. DOI: 10.1007/s11233-019-09048-7.

#### Abstract:

In many countries, quality assurance systems rely on study programme accreditation. As with all quality assurance mechanisms, accreditation should also be continuously improved in order to maintain its relevance as a promoter of study programme quality. A way to move accreditation forward is by taking into account academics' views, interests and needs about the process, since their support for it is paramount for its success and effectiveness. This paper analyses Portuguese academics' knowledge and views on accreditation with the aim of understanding if the process is being supported and is on the right route for being effective. It is based on the analysis of 1484 academics' answers to a questionnaire distributed in 16 higher education institutions. This analysis reveals a moderately positive attitude of academics towards accreditation, reflected in an only moderate knowledge of the process as well as in a mild agreement with its characteristics and implementation features. This suggests that there is room for improvement to bring this quality assurance mechanism closer to academics' expectations and needs and therefore to improve accreditation's effectiveness.



Serna, Gabriel R. (2020):

Signalling, student identities, and college access. A proposed conceptual model of college choice and going.

In: *Tertiary Education and Management* 26 (1), S. 19–37. DOI: 10.1007/s11233-019-09041-0.

*Abstract:*

Relying on a multitude of studies from the college choice literature, I propose an updated model of college going and choice that draws on four conceptual, theoretical, and analytic approaches. With guidance from the economic, sociological, information processing, and combined theories of college choice, I situate my proposed framework within this extant literature to provide some direction and formal conceptualization of the role that signalling and identity play with regard to college access. In addition to understanding students' identities within typical utility models, this essay also attempts to carefully consider both the explicit and implicit assumptions about valued identity categories (insiders) and those that are less valued (outsiders) in the college going and choice process. Finally, through deliberate examination of how signals are sent to students and the acquisition of signals (credentials) by students, I consider how this relays information about which identities are valued by higher education socially, and by specific institutions in particular. In so doing, I feel that I have laid a foundation for future work that carefully ties philosophical and public good notions back to the college choice process and to higher education's underlying ethos of service in the public interest.

Shawa, Lester Brian (2020):

The public mission of universities in South Africa. Community engagement and the teaching and researching roles of faculty members.

In: *Tertiary Education and Management* 26 (1), S. 105–116. DOI: 10.1007/s11233-019-09040-1.

*Abstract:*

Community engagement as a public mission of higher education is widely accepted in South Africa. This is articulated in White Paper 3 on the transformation of higher education and in institutional policies that promote different forms of community engagement. However, compared to the traditional roles of teaching and research, community engagement remains contested. It is most often viewed as voluntary and perhaps even peripheral. Given the serious social disparities in South Africa, community engagement needs to be invigorated and placed on par with the teaching and researching roles of universities. Furthermore, it should not only involve collaborative knowledge production, but should combine epistemological and ontological dimensions and involve holistic human development capable of dealing with social disparities. A combined epistemological-ontological conception of community engagement is developed in this study and interventions are proposed at three levels. First, university induction programs, which tend to prioritize the teaching and researching roles of faculty members, should consider community engagement as equally important. Second, just as the teaching and researching roles tend to be well planned and/or incentivized, so too should community engagement. Third, community engagement should adopt a mode 2 knowledge production lens where community members reflexively produce knowledge together with faculty members and contribute to holistic human development. Finally, strategies are suggested to embed an epistemological-ontological conception of community engagement.

Stamelos, George; Lambropoulos, Haris; Bousiou, Ourania (2020):

The organizational autonomy of Greek universities: An attempt at quantification.

In: *Tertiary Education and Management* 26 (2), S. 151–169. DOI: 10.1007/s11233-019-09051-y.

*Abstract:*

Both qualitative and quantitative evaluation of the degree of organizational autonomy of Greek universities, during the period of the implementation of Law 4009/11, is attempted. The necessity of such a study is very important and fruitful for the Greek universities, since in the period of the last research (2017) of the European Union Association (EUA) concerning university autonomy, Greece did not provide the required data to EUA and was not included in the countries studied. Sources regarding the measurement of the degree of university autonomy in Greece were based on the methodology and results that emerged from the EUA researches (2007 & 2017), as well as on the review of the literature and analysis of the data that emerged from the legislation applied by the universities in Greece, during the corresponding period. The quantification of organizational autonomy provided the score and rank of Greek universities relative to other European universities, which is found to be quite low. Therefore, we make proposals for a realistic, for Greek data, increase in

organizational autonomy. The aim is to upgrade the services provided by institutions and to respond to the modern requirements of a globalized society and market.

Suomi, Kati; Kuoppakangas, Päivikki; Kivistö, Jussi; Stenvall, Jari; Pekkola, Elias (2020):

Exploring doctorate holders' perceptions of the non-academic labour market and reputational problems they relate to their employment.

In: *Tertiary Education and Management* 26 (4), S. 397–414. DOI: 10.1007/s11233-020-09061-1.

*Abstract:*

Doctoral employment outside universities has been increasing, as universities cannot employ all doctorate holders. Nevertheless, it has been argued that the shift from doctoral programs to the non-academic labour market has been limited. In this qualitative study, more than 800 verbal answers given by doctorate holders to a pair of open-ended questions were content-analysed to explore doctorate holders' perceptions of the non-academic labour market and the reputational problems they relate to their employment. The study identifies four reputational problems which doctorate holders relate to their employment: the oversupply problem, the overeducation problem, the consistency problem and the communication problem. By identifying potential reputational problems on the doctorate holders level, this research contributes novel information in terms of both theory development and practitioner insights.

Tight, Malcolm (2020):

Higher education. Discipline or field of study?

In: *Tertiary Education and Management* 26 (4), S. 415–428. DOI: 10.1007/s11233-020-09060-2.

*Abstract:*

Higher education, or more strictly higher education studies, is sometimes referred to as a discipline, though it is more often referred to as a field, sector or area for study. But what is a discipline and does higher education studies, at its current state of development, qualify as one? This article re-considers these matters and comes to some conflicting conclusions. The issue of whether higher education studies is, or is not, a discipline should probably, therefore, be regarded as still open for debate.

Titus, Marvin A. (2020):

Examining degree production and financial context at public master's colleges and universities in the United States. A distance function approach.

In: *Tertiary Education and Management* 26 (2), S. 215–231. DOI: 10.1007/s11233-019-09049-6.

*Abstract:*

Using an output distance function as an analytic framework, stochastic frontier analysis (SFA), and a generalized true random effects (GTRE) model, this study examines the financial context of bachelor's degree production efficiency among public master's colleges and universities (MCUs) in the United States. Employing a GTRE model, degree production inefficiency is decomposed into transient (short-run) and persistent (long-run) components. This investigation finds that bachelor's degree production is positively and non-linearly related to doctoral degree production. Persistent efficiency is positively related to tuition revenue, state appropriations, and Pell grant revenue and negatively related to federal grant and contract revenue. This study finds that bachelor's degree production efficiency scores that take into account the financial context of public MCUs should be considered as "pure" efficiency scores, which differ from the "technical" efficiency scores that don't adjust for the financial context. Using efficiency scores, this research allows for the ranking of public MCUs, which may be used to further identify best management practices.

Wepner, Shelley B.; Henk, William A. (2020):

**Education deans' perspectives on factors contributing to their longevity.**

In: *Tertiary Education and Management* 26 (4), S. 381–395. DOI: 10.1007/s11233-020-09059-9.

*Abstract:*

This study explored the construct of *longevity* for education deans and the perceived impact that endurance in the role exerts on the welfare of schools and colleges of education. Some 181 standing education deans who had served for five or more years responded to a 12-item online survey that probed their perspectives on the professional and personal benefits of their longevity, the influence on their institutions, factors contributing to or jeopardizing their time in office, and the optimal term to stay in the position. From the qualitative analyses, a multi-faceted conceptualization, job satisfaction, emerged as the main reason education deans remained in their roles. This emerged as a result of the perceived support they have to effect and sustain change, and of feeling entrusted to provide effective leadership and continuity for their various constituencies, while enjoying their camaraderie. Noteworthy impediments to longevity and advice for new deans were also revealed.

Zhang, Kun (2020):

**When Macao's English-medium university meets Mainland students' mindscape.**

In: *Tertiary Education and Management* 26 (4), S. 345–362. DOI: 10.1007/s11233-020-09056-y.

*Abstract:*

With the globalization of higher education, the tertiary institutions in Macao have adopted English as the main medium of instruction in order to strengthen their competitiveness, having attracted a large number of Mainland Chinese students. However, little has been known about their experiences and perceptions of English use in Macao, especially in English-medium universities. In this regard, this paper takes an integrated approach of language survey and interviews, examining how Mainland Chinese students use English in different settings and perceive their English use in Macao by looking into the students studying at the University of Macau. It is found that Mainland Chinese students use English mainly in the academic-related settings inside campus, yet rarely use English in non-academic-related settings. Also, English is infrequently used due to the dominant use of Putonghua. Moreover, the paper discusses the implications for how English-medium programmes help improve Mainland Chinese students' English learning and use, along with the practical suggestions for the universities and Macao government.

# ZeHf – Zeitschrift für empirische Hochschulforschung (4) 2020

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## Editorials

Editorial.

[Editorial] (2020). In: ZeHf – Zeitschrift für empirische Hochschulforschung 4 (1), S. 3–4.

Editorial.

[Editorial] (2020). In: ZeHf – Zeitschrift für empirische Hochschulforschung 4 (2), S. 109.

Grunschel, Carola; Dresel, Markus (2020):

Studienerfolg und Studienabbruch. Gruppenspezifische Untersuchungen ihrer Bedingungen - Einführung in das Themenheft.

[Introduction]. In: *ZeHf – Zeitschrift für empirische Hochschulforschung* 4 (1), S. 5–12. DOI: 10.3224/zehf.v4i1.02.

*Abstract:*

Der Aufsatz gibt eine Einführung in das Themenheft zu Studienerfolg und Studienabbruch in der Zeitschrift für empirische Hochschulforschung (ZeHf). Darin sind vier Beiträge enthalten, die im Rahmen von Forschungsprojekten der BMBF-Förderlinie „Studienerfolg und Studienabbruch“ aus psychologischer, soziologischer, erziehungswissenschaftlicher und fachdidaktischer Perspektive entstanden sind.

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This is an introduction to the special issue on study success and dropout, published in *Zeitschrift für empirische Hochschulforschung* (ZeHf). It comprises four papers from research projects belonging to the funding line on “study success and dropout” installed by the Federal Ministry of Education and Research (BMBF), and combines psychological, sociological, educational, and didactical perspectives.

## Original Articles

Brenning, Stefanie; Wolf, Elke (2020):

MINT-Projekte für Schülerinnen an Hochschulen. Analyse des Wirkungsmechanismus und Meta-Evaluation der empirischen Evidenz.

In: *ZeHf – Zeitschrift für empirische Hochschulforschung* 4 (2), S. 111–129. DOI: 10.3224/zehf.v4i2.02.

*Abstract:*

An deutschen Hochschulen für angewandte Wissenschaften existieren zahlreiche Angebote, um Schülerinnen für Studiengänge und Berufe im MINT-Bereich zu begeistern. Wissenschaftlich gesicherte Erkenntnisse über deren Wirksamkeit fehlen jedoch weitgehend. Ausgehend vom aktuellen Forschungsstand entwickeln wir eine mehrstufige Wirkungslogik dieser Maßnahmen und analysieren anschließend die Methodik der uns vorliegenden 13 Evaluationen mithilfe einer Meta-Evaluation. Die Befunde zeigen, dass diese Evaluationen von MINT-Projekten nur sehr eingeschränkt

der Erfolgsmessung dienen, da sich die schriftlichen Fragebögen größtenteils auf kurzfristige Erfolgsindikatoren beschränken und die Untersuchungsdesigns nicht den Ansprüchen einer Kausalanalyse genügen.

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*STEM projects for female pupils at Universities of Applied Sciences. Analysis of impact mechanisms and meta-evaluation of empirical evidence*

Universities of Applied Sciences in Germany offer numerous programs for female pupils in order to spark their interest in studying and working in STEM disciplines. Yet, scientifically verified impact assessments of these programs are still largely missing. Proceeding from the current state of research, we develop a multi-level impact logic of these programs and subsequently analyze the applied methods in 13 evaluations that are accessible to us using a meta-evaluation. Our results show that these evaluations of STEM projects are constrained in their ability to measure success because their questionnaires mostly focus on very short-term success indicators and their research designs don't fulfill the requirements of causal analyses.

Fischer, Vanessa; Walpuski, Maik; Lang, Martin; Letzner, Melanie; Manzel, Sabine; Motté, Patrick et al. (2020):

Was beeinflusst die Entscheidung zum Studienabbruch? Längsschnittliche Analysen zum Zusammenspiel von Studienzufriedenheit, Fachwissen und Abbruchintention in den Fächern Chemie, Ingenieur- und Sozialwissenschaften.

In: ZeHf – Zeitschrift für empirische Hochschulforschung 4 (1), S. 55–80. DOI: 10.3224/zehf.v4i1.05.

*Abstract:*

Die Untersuchung der Gründe für den Studienabbruch von Studierenden in MINT-Fächern ist wegen des akuten Fachkräftemangels von großer Bedeutung. Dabei ist bisher wenig über Unterschiede zwischen MINT-Studiengängen, aber auch im Vergleich zu anderen Studiengängen, hinsichtlich der Abbruchgründe bekannt. Die längsschnittlich angelegte Studie untersucht daher individuelle Einflussfaktoren auf den Studienerfolg und Studienabbruch in zwei typischen MINT-Studiengängen (Chemie und Maschinenbau) und kontrastierend dazu in Studiengängen aus dem sozialwissenschaftlichen Bereich (Politikwissenschaft, Soziologie, Soziale Arbeit). Während in bisherigen Studien (z.B. Heublein et al., 2017) fachübergreifende Prädiktoren für den Studienabbruch identifiziert werden konnten, wurde in den Analysen dieser Studie festgestellt, dass sich diese zwischen den Fächern und auch zwischen unterschiedlichen Hochschultypen sehr unterschiedlich auswirken. Vor allem die Sozialwissenschaften zeigen im Vergleich zu den MINT-Fächern einen deutlich geringeren Einfluss des Fachwissens auf den Studienabbruch.

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*What influences the decision to drop out? Longitudinal analyses of the interplay between study satisfaction, content knowledge and dropout intention in chemistry, engineering and social sciences*

In view of the current shortage of qualified personnel in STEM subjects, the investigation of the reasons for dropping out of university studies is of great importance. Little is known about the differences between STEM study programmes and other study programmes with regard to the reasons for dropping out. The longitudinal study of this project therefore examines the factors influencing the success and termination of studies in two typical STEM programmes (chemistry and mechanical engineering) and, in contrast, in programmes of the social sciences (political science, sociology, social work). Based on Heublein et al. (2017), data were collected to identify subject-specific factors influencing the dropout of students. The results of path analyses indicate that dropout by students of social sciences is less influenced by content knowledge compared to STEM study programmes.

Hilmi Yildirim, Hüseyin; Zimmermann, Julia; Jonkmann, Kathrin (2020):

Lernerprofile bei Bildungsausländer\*innen und längsschnittliche Zusammenhänge mit Studienzufriedenheit und Abbruchintention.

In: ZeHf – Zeitschrift für empirische Hochschulforschung 4 (1), S. 32–54. DOI: 10.3224/zehf.v4i1.04.

*Abstract:*

Obwohl immer mehr Bildungsausländer\*innen an deutschen Hochschulen studieren, ist über die Einflussfaktoren auf ihren Studienerfolg bisher wenig bekannt. Da sie besonders gefordert sind, den Lernstoff eigenständig vor- und nachzuarbeiten, untersuchte die vorliegende Studie ihr Nutzungsverhalten kognitiver und metakognitiver Lernstrategien als

Schlüsselkomponenten selbstregulierten Lernens und deren längsschnittliche Effekte auf Studienzufriedenheit und Abbruchintention. Anhand latenter Profilanalysen wurden bei N = 3,837 Bildungsausländer\*innen vier Lernerprofile (Maximal-, Tiefen-, Durchschnitts- und Minimallerner) im ersten Studiensemester ermittelt und ihre prospektive Vorhersagekraft für die Studienzufriedenheit und Abbruchintention am Ende des ersten Studienjahres bestätigt. Aus den Befunden lassen sich Implikationen für die Gestaltung von (profil-)spezifischen Trainings- und Unterstützungsangeboten für Bildungsausländer\*innen in Deutschland ableiten.

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*Learning profiles of international students and their longitudinal relationships with study satisfaction and drop-out intention*

Although international students are a growing student group at German universities, little is known about the predictors of their academic success. Since they are faced with high demands to prepare and follow up on classwork, the present study analyzed their user profiles of cognitive and metacognitive learning strategies as key components of self-regulated learning and their longitudinal effects on study satisfaction and drop-out intention. Using latent profile analyses on N = 3,837 international students, four learning profiles (maximum learners, in-depth learners, average learners, minimum learners) were identified and their prospective predictive effects on study satisfaction and drop-out intention at the end of the first study year were approved. These findings inform the development of (profile-)specific measures to support international students in Germany.

Kegel, Lena S.; Schnettler, Theresa; Scheunemann, Anne; Bäumke, Lisa; Thies, Daniel O.; Dresel, Markus et al. (2020):

Unterschiedlich motiviert für das Studium. Motivationale Profile von Studierenden und ihre Zusammenhänge mit demografischen Merkmalen, Lernverhalten und Befinden.

In: ZeHf – Zeitschrift für empirische Hochschulforschung 4 (1), S. 81–105. DOI: 10.3224/zehf.v4i1.06.

*Abstract:*

Auf der Basis eines multidimensionalen Verständnisses von Studienmotivation wird ein Zusammenspiel motivationaler Variablen verschiedener Phasen des Studiums im Hinblick auf akademische Erfolgskriterien angenommen. Jedoch gibt es hierzu bislang keine empirische Evidenz. In der vorliegenden Studie wurde das Ziel verfolgt, das intraindividuelle Zusammenspiel intrinsischer und extrinsischer Studienwahlmotivation als Variablen der Studienvorphase sowie des akademischen Selbstkonzepts und der akademischen Selbstwirksamkeit als Variablen der Phase im Studium in Form motivationaler Profile von Studierenden aufzudecken. Ferner wurden Unterschiede zwischen Studierenden verschiedener motivationaler Profile hinsichtlich demografischer Merkmale, Bildungsmerkmalen, Lernverhalten (Anstrengung und Prokrastination) und Befinden (Studienzufriedenheit, Studienabbruchintention) ermittelt. An der Studie nahmen N = 1,426 Studierende der Studienbereiche MINT, Rechtswissenschaft, Wirtschaftswissenschaft und Erziehungswissenschaft teil. Mittels der Analyse latenter Profile wurden fünf motivationale Profile ermittelt. Männliche Studierende, jüngere Studierende und Studierende jüngerer Semester waren in Profilen mit höheren Ausprägungen der motivationalen Variablen stärker vertreten. Insgesamt wiesen Studierende in Profilen mit höherer im Vergleich zu moderater Studienmotivation ein günstigeres Studierverhalten und geringere Studienabbruchintentionen auf. Der Beitrag stützt die Relevanz, die motivationalen Prozessen für günstiges Lernverhalten und Studienabbruch zugeschrieben wird. Auch wenn ein Großteil der Studierenden in diesem Beitrag eine hohe Studienmotivation berichtete, legen die Befunde nahe, Maßnahmen zur Förderung von Studienmotivation für Subgruppen von Studierenden in der Hochschulpraxis anzubieten.

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Different motivational profiles of university students and their relation to demographic characteristics, learning behavior, and study-related well-being

On the basis of a multidimensional understanding of study motivation, an interplay of motivational variables of different study phases with regard to academic success is assumed. Yet, it lacks empirical evidence regarding this interplay. The aim of the present study was to uncover the intraindividual interplay of intrinsic and extrinsic study choice motivation representing variables of the pre-university phase and of academic self-concept and academic self-efficacy indexing variables of the study phase as combined in motivational profiles. Furthermore, we identified differences between students of the distinct motivational profiles with respect to demographic characteristics, educational characteristics, learning behavior (effort and procrastination), and well-being (study satisfaction, student dropout intention). The sample consisted of N = 1,426 students, enrolled in STEM, law, economics and educational science majors. Applying latent profile analysis, we identified five motivational profiles. Profiles expressing higher motivation were disproportionate for male students, younger students, and students of lower semesters. Overall, students in profiles with high compared to moderate study motivation showed more adaptive study behavior and lower student dropout intentions. The present study underlines the relevance attributed to motivational processes for adaptive learning behavior and student dropout intention. Although a

large proportion of students reported high study motivation, our findings suggest that approaches to foster student motivation should be offered in higher education and address specific groups of students.

Klein, Daniel; Müller, Lars (2020):

### Soziale, ethnische und geschlechtsspezifische Ungleichheiten beim Studienabbruch. Welche Rolle spielen akademische Leistungen vor und während des Studiums?

In: ZeHf – Zeitschrift für empirische Hochschulforschung 4 (1), S. 13–31. DOI: 10.3224/zehf.v4i1.03.

#### *Abstract:*

Wir untersuchen mit Daten des Nationalen Bildungspanels (NEPS), inwiefern soziale, ethnische und geschlechtsspezifische Ungleichheiten beim Studienabbruch auf unterschiedliche akademische Leistungen vor und während des Studiums zurückzuführen sind. Theoretisch folgen wir der Unterscheidung zwischen leistungsbedingten (primären) und entscheidungsbasierten (sekundären) Effekten. Ergebnisse logistischer Regressionen zeigen, dass die Schulabschlussnote für die Erklärung gruppenspezifischer Ungleichheiten relevanter ist als die Studiennote. Das geringfügig höhere Studienabbruchrisiko von Männern ist vollständig auf Leistungsdefizite zurückzuführen. Soziale und ethnische Ungleichheiten sind in unterschiedlichem Ausmaß jeweils nur teilweise durch Leistungsunterschiede zu erklären. Die Ergebnisse implizieren, dass hochschulische Interventionen zur Reduktion von Leistungsdefiziten zu spät ansetzen und bezüglich ethnischer und sozialer Ungleichheiten beim Studienabbruch zu kurz greifen.

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*Social, ethnic, and gender-specific inequalities in higher education dropout. How relevant are academic achievements before and during higher education?*

Using data from the National Educational Panel Study (NEPS), we examine the extent to which social, ethnic, and gender-specific inequalities in dropout from higher education can be attributed to differences in academic achievements before and during the course of studies. Theoretically, we follow the distinction between performance-based (primary) and decision-based (secondary) effects. Results of logistic regressions show that the final grade in secondary education is more relevant for explaining group-specific inequalities than the grades that students receive during higher education. The slightly higher dropout risk among men appears to be entirely due to performance deficits. In contrast, social and ethnic inequalities are only partly explained by differences in performance. Our results imply that interventions aiming at reducing performance deficits during higher education start too late and fall short of eliminating ethnic and social inequalities in dropout.

Knaut, Max; Ziegler, Matthias (2020):

### Akzeptanz und Nutzung psychologischer Verfahren zur Auswahl von Promovierenden.

In: ZeHf – Zeitschrift für empirische Hochschulforschung 4 (2), S. 144–164. DOI: 10.3224/zehf.v4i2.04.

#### *Abstract:*

Die Auswahl von Promovierenden ist für Wissenschaftsorganisationen von hoher Relevanz. Dennoch existieren bisher kaum Studien zu diesen Prozessen. Die Arbeit adressiert diese Lücke, indem sie Akzeptanzurteile für Auswahlverfahren bei N = 170 potenziell Bewerbenden erfragte. Frei geführte Auswahlgespräche, berufliche Erfahrungen, Arbeitsproben und strukturierte Auswahlgespräche erhielten die höchsten Akzeptanzwerte. Persönlichkeitseigenschaften der Befragten und vorher erbrachte Leistungen in den Verfahren hatten keinen signifikanten Einfluss auf die Akzeptanzurteile. Welche Verfahren eingesetzt werden, hatte Einfluss auf eine mögliche Bewerbungsabsicht. Zusätzlich wurde bei N = 164 Promovierenden erhoben, wie diese tatsächlich ausgewählt wurden. Promotionsstellen wurden am häufigsten durch frei geführte Auswahlgespräche und persönliche Kontakte besetzt. Es werden Implikationen für die Gestaltung von Auswahlverfahren von Promovierenden mit Blick auf Akzeptanz, Validität und Fairness diskutiert.

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*Acceptance and application of psychological selection procedures for doctoral candidates*

Selection processes for doctoral candidates are of great relevance for scientific organizations. However, there is only a limited number of studies on this subject. This study addresses this gap by asking N = 170 potential applicants for acceptance ratings of different selection methods. Unstructured interviews, professional experience, work samples and structured interviews had the highest ratings in acceptance. Participants' personality traits and previous performance in

the selection methods had no impact on acceptance ratings. The selection method used had an impact on the decision whether or not someone applied for a doctoral position. In addition, N = 164 doctoral candidates were asked how doctoral candidates were actually selected. Unstructured interviews and personal contacts were most often used to fill doctoral positions. Implications for doctoral candidates' selection processes are discussed with respect to acceptance, validity, and fairness.

Schult, Johannes (2020):

### Test- und notenbasierte Erfolgsprognose im wirtschaftswissenschaftlichen Masterstudium. Befunde aus dem Nationalen Bildungspanel.

In: ZeHf – Zeitschrift für empirische Hochschulforschung 4 (2), S. 130–143. DOI: 10.3224/zehf.v4i2.03.

#### *Abstract:*

Fachspezifische Studierfähigkeitstests haben sich auch im deutschsprachigen Raum als valide Prädiktoren des Bachelorstudienerfolgs und somit als hilfreiche standardisierte Auswahlinstrumente erwiesen. Anhand der Daten des Nationalen Bildungspanels (NEPS) wurde untersucht, ob sich ein vergleichbares Muster auch für das konsekutive Masterstudium zeigt. Die Analysestichprobe umfasste 118 Studierende der Wirtschaftswissenschaften, die zum Ende ihres Bachelorstudiums einen fachspezifischen Kompetenztest bearbeiteten und ein Masterstudium aufnahmen. Der Test zeigte eine niedrige Validität ( $r = -.23$ ) bezüglich der Masternoten. Es zeigte sich dabei keine inkrementelle Validität über die Bachelornote hinaus. Bei gleichem Testscore waren Frauen im Schnitt um 0.17 Notenpunkte besser als Männer. Die Ergebnisse sprechen gegen den Einsatz des wissenslastigen Fähigkeitstests zur Studierendenauswahl im Master. Gelingensfaktoren für eine erfolgreiche Studierendenauswahl werden im Kontext von Prädiktorenkombinationen diskutiert.

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#### *Test-based and grade-based prediction of success in Economics Masters: Findings from the National Educational Panel Study*

Subject-specific competence tests have been proven to be valid predictors of academic success in Bachelor studies; such tests are therefore useful standardized tools in student selection procedures. Using data from the National Educational Panel Study (NEPS), we investigated whether the pattern is similar for academic success in subsequent Master studies. The analysis sample consisted of 118 economics students who took a subject-specific competence test at the end of their Bachelor degree and began a subsequent Master. The test showed a weak validity ( $r = -.23$ ) regarding the Master grade point average (GPA). It had no incremental validity over the Bachelor GPA. Given equal test scores, women outperformed men by 0.17 grade points on average. The results suggest that the knowledge-based test is not suited for Master student selection. Success factors for student selection procedures are discussed in the context of combining multiple predictors.

Thies, Katharina; Kordts-Freudinger, Robert (2020):

### Wie gehen Hochschullehrende mit ihren Emotionen in der Lehre um? Eine Experience-sampling-Befragung zum situativen Emotionsausdruck von Freude, Angst und Ärger.

In: ZeHf – Zeitschrift für empirische Hochschulforschung 4 (2), S. 165–184. DOI: 10.3224/zehf.v4i2.05.

#### *Abstract:*

Hochschullehrende sind in der Lehre mit Situationen konfrontiert, die in ihnen Emotionen auslösen und damit verbunden eine Regulation der Emotionen fordern können. Für diese wenden Hochschullehrende häufig reaktionsorientierte Emotionsregulationsstrategien an, die u.a. auf den Emotionsausdruck abzielen. Unbekannt ist, ob und wie häufig Hochschullehrende spezifische Emotionen in Lehrsituationen ausdrücken und welche Zusammenhänge zwischen dem Emotionserleben und dem Emotionsausdruck bestehen. Der vorliegende Beitrag untersucht den Emotionsausdruck von Freude, Angst und Ärger bei N = 80 Hochschullehrenden durch eine mehrmalige Experience-sampling-Erhebung im Anschluss an N = 802 Lehrsituationen. Die Befunde deuten darauf hin, dass Hochschullehrende Freude überwiegend authentisch ausdrücken, während sie Angst und Ärger tendenziell in der Lehrveranstaltung nicht ausdrücken. Für die spezifischen Emotionen ergeben sich unterschiedliche intra- und interindividuelle Zusammenhänge (d.h. innerhalb und zwischen den Hochschullehrenden). So neigt etwa eine Hochschullehrperson bei einem starken Angsterleben in einer Lehrsituation dazu, den Emotionsausdruck zu unterdrücken; eine Tendenz, die sich bei Hochschullehrenden mit einem



allgemein starken Angsterleben nicht fand. Die Ergebnisse sprechen für eine differenzierte Analyse von intra- und interindividuellen Zusammenhängen emotionsbezogener Vorgänge in Lehrsituationen.

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*How do university lecturers handle their emotions during teaching? An experience-sampling study of the situational emotion expression of joy, anxiety and anger*

In their teaching, university lecturers are confronted with situations that can trigger emotions in them and thus demand a regulation of the emotions. For these situations, they often apply reaction-oriented emotion regulation strategies, which, among other things, target the expression of emotions. It is not known whether and how often university lecturers express specific emotions in teaching sessions and what relations exist between the experience of emotions and the expression of emotions. This study investigates the emotional expression of joy, anxiety, and anger among N = 80 university lecturers by using an experience-sampling survey following N = 802 lectures. The findings indicate that university lecturers express joy mostly authentically, while they tend to suppress the expression of anxiety and anger. Different intra- and interindividual relations (i.e., within and between the instructors) were found for the specific emotions. For example, a university lecturer with a strong experience of anxiety in a teaching session tends to suppress the emotional expression; a tendency that was not present among university lecturers with a generally strong experience of anxiety. The results emphasize a differentiated analysis of intra- and interindividual correlations of emotional processes in teaching situations.