



## Higher education and science future(s): rethinking change, governing uncertainty, imagining alternatives

Marcelo Marques & Justin J. W. Powell

**To cite this article:** Marcelo Marques & Justin J. W. Powell (2025) Higher education and science future(s): rethinking change, governing uncertainty, imagining alternatives, European Journal of Higher Education, 15:sup1, 1-22, DOI: [10.1080/21568235.2025.2598558](https://doi.org/10.1080/21568235.2025.2598558)

**To link to this article:** <https://doi.org/10.1080/21568235.2025.2598558>



© 2025 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group



Published online: 05 Jan 2026.



[Submit your article to this journal](#)



[View related articles](#)



[View Crossmark data](#)

# Higher education and science future(s): rethinking change, governing uncertainty, imagining alternatives

Marcelo Marques  and Justin J. W. Powell 

Department of Social Sciences, University of Luxembourg, Esch-sur-Alzette, Luxembourg

## ABSTRACT

Crises and pervasive uncertainty increasingly oblige higher education and science (HE&S) to embrace an understanding of change that is not confined exclusively to past trajectories but incorporates contested conceptions of future(s). This introduction to the CHER 2024 special issue argues that future(s) in HE&S are actively made and governed. Drawing on seven contributions – on temporal strategies, policy shocks on student mobility, the academic profession, third-party funding, hybrid learning spaces, digital resistance, and knowledge transfer – the article identifies central pressures and emerging responses. Building on these studies, it highlights three directions for research, policy, and organisational development: first, the importance of temporal dynamics in overcoming short-termism and cultivating *temporal fit* between policy and organisational cycles and rhythms, and the long horizons required for the sustainability of HE&S; second, the need to reimagine public sector and HE&S governance beyond narrow new public management logics, towards public-value and service-oriented models; and third, the design of resilient HE&S systems capable of withstanding geopolitical, financial, and policy shocks. The article concludes by outlining how institutional theory and futures studies can mutually enrich one another and invite the field to continue to trace and theorise how future(s) are legitimised, contested, and enacted in HE&S.

## ARTICLE HISTORY

Received 28 November 2025

Accepted 29 November 2025

## KEYWORDS

Higher education; science; institutionalisation; change; future; uncertainty

## 1. Contextualising the theme: institutions, uncertainty, and the future(s) we face

On the second day of the 35th annual Consortium of Higher Education Researchers (CHER) conference at the Vienna University of Economics and Business (WU Wien) in 2023, we sat down to brainstorm and consider possible themes for the following year's conference: CHER 2024, to be hosted for the first time in Luxembourg – at the Université du Luxembourg. As long-time collaborators, our conversations have often gone beyond the boundaries of higher education and science (HE&S), touching on broader concerns that shape our research agendas and worldviews. As for many scholars

**CONTACT** Marcelo Marques  [marcelo.marques@uni.lu](mailto:marcelo.marques@uni.lu)

© 2025 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group

This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.

across the social sciences, understanding the past offers crucial insights to help us make sense of the present. We historicise, contextualise, and trace continuities while attending to junctures and incremental changes that have affected and even transformed HE&S and society. Yet the *future*, as an object of scholarly inquiry, has traditionally remained (much) more elusive, often confined to niche subfields concerned with temporality or forecasting.

As institutionalists, we have long been attuned to the power of the past in reconstructing how institutions emerge, stabilise, and reproduce themselves incrementally over time. HE&S are no exception – an enduring set of institution(s) shaped by path dependencies that often resist rapid change, while gradually adjusting (see Drori et al. 2003; Leišytė, Dee, and van der Meulen 2023; Meyer et al. 2007). Universities are frequently cast as guardians of accumulated knowledge, embedded in historically grounded missions and buffered from short-term pressures. Yet their success and endurance over centuries, indeed millennia, witness this adaptability to new institutional environments even as they contribute centrally to the scientisation that has so fundamentally altered our lives and longevity via disciplinary advances and technological innovation (Baker et al. 2025; Marques et al. 2025).

This deep-seated institutional resilience is observable not only in the internal structures of universities but also in the broader global systems of HE&S (Marginson 2022; Marginson and Van der Wende 2007). Despite increasing interconnectedness via growth across all fields of international research collaborations (Dusdal and Powell 2021; Kwiek, Horta, and Powell 2024), knowledge production and academic influence in the multidisciplinary field of higher education remain dominated by a few Anglo-phone countries (Fu et al. 2022). A further reason for the often-overlooked presence of *future(s)* in HE&S discourse is the relative silence of institutional change ever unfolding. Transformations in HE&S frequently evolve incrementally over decades – gradual, cumulative, and easily mistaken for continuity rather than disruption (Zapp, Marques, and Powell 2021). As Baker (2014) uncovered, we now live in thoroughly ‘schooled societies,’ in which postsecondary education participation has increased incrementally with each cohort but in sum dramatically – from less than 0.2% in 1900 to over 40% by 2020 (Baker and Powell 2024, 185).

The same pattern holds in science, which is considerably influenced by the research university. Building upon this education revolution, the global spread of the research university as the key organisational form of science and expanding (interorganisational and international) research collaboration, the production of scientific knowledge has expanded exponentially. Output in leading journals rose from approximately 10,000 papers indexed in the Clarivate Analytics’ Web of Science ‘Science Citation Index Expanded’ (SCIE) in 1900 to more than 4 million annually today, exhibiting what Price (1963) and Ben-David (1990) famously called ‘pure exponential growth’ (see Baker and Powell 2024). The twentieth century has been rightly termed the ‘century of science’ (Powell, Baker, and Fernandez 2017), and its hallmark has been the global triumph of the research university and science as social institution (Baker et al. 2025; Drori et al. 2003; Marques et al. 2025). This deeply institutionalised legacy continues to shape the present – even as many of these path dependencies are questioned. Social institutions and the organisations embedded in them, while often resistant to change, are also influenced and reshaped by the environments in which they are embedded,

determining the scope, degree, and pace of change (Frank and Meyer 2020; Krücken and Meier 2006). It is important to distinguish institutions and organisations (Frank, Smith, and Meyer 2025) and levels of analysis (Suárez and Bromley 2016). While institutional theory has well-illuminated the mechanisms of continuity and incremental change, the increasing volatility of global events demands that we also interrogate how institutions anticipate, imagine, and construct their future(s). This dual lens – historicising the present while envisioning (alternative) future(s) – enables a more dynamic understanding of the roles of HE&S in society.

Indeed, at the time of our conversation – set against the backdrop of the WU Wien Library, a campus centrepiece designed by the late revolutionary architect Zaha Hadid – we were nearly two years into Russia’s full-scale invasion of Ukraine, a conflict that had not only destabilised European security but also shaken the normative foundations of international cooperation – including in HE&S (Brooks and Rensimer 2025; Tamtik and Felder-Stindt 2024). The world was still catching its collective breath in the aftermath of the COVID-19 pandemic, struggling to return to some past notion of ‘normality’ amid acute and on-going disruptions to social, economic, political, and institutional life. Economic inflation was placing renewed pressure on public budgets, households, and university finances alike. The worsening climate crisis demanded urgent, coordinated responses, yet political momentum remained fragmented and insufficient. Populist and nationalist movements continued to challenge democratic institutions, and scientific authority, even attacking academic freedom in multiple world regions (see Douglass 2021; Lerch, Frank, and Schofer 2024; Oleksiyenko and Jackson 2021; Schofer, Lerch, and Meyer 2022), with negative consequences for universities, collaborations, and science productivity (Chykina et al. 2025).

These overlapping crises – what some have termed a ‘polycrisis’ (Jules and Salajan 2025; Lawrence et al. 2024) or even a state of ‘permacrisis’ (Brown et al. 2023) – intensified our sense that the future had become more than a distant horizon, but it had emerged as problematic in its own right, a site of anxiety, contestation, and governance challenges. Crises of this magnitude exert significant pressure on institutions and organisations by unsettling established routines, shifting political priorities, and steering policy trajectories. They generate competing problem frames that facilitate or obstruct policy learning, amplify public scrutiny – supportive, questioning or critical – and serve as triggers for both reactive and anticipatory policymaking (Elfert and Balakrishnan 2025; Marques, Graf, and Rohde-Liebenau 2023; Marques, Rohde-Liebenau, and Graf 2025). In this sense, crises do not merely disrupt; they also open institutional space for recalibration, experimentation, backlash and, at times, even profound transformation.

Amidst such worldwide uncertainties, we recognised the urgency of foregrounding future(s) as a conceptual and empirical concern of the global community of scholars contributing to the CHER, meeting each year since the inaugural event in 1988 in Kassel, Germany. The past, present, and future(s) of HE&S, especially given our contemporary realities at global, national, and local levels, have gained renewed urgency. Concurrently, changes in politics (from re-oligarchisation and autocracy to global rivalries and warfare), in an intertwined but now more competitive global political economy, in the environmental crisis and the unsustainability of development, in social policy (from poverty relief to social investment), and in identity politics, all emphasise the crisis of (neo-)liberalism, with modernity entering a new phase (Domingues 2025). The subject

of future(s) remains abstract and social scientists and policymakers inherently struggle to correctly forecast how our demographic, social, and environmental challenges will be resolved. Considerable efforts are needed to synthesise quickly shifting trends, to compare developmental patterns across various temporal scales, and to negotiate uncertainties.

Yet critics abound, and the claim that the present contains as much ‘future’ as ‘past’ remains under-theorised, despite its effects on social and scientific practices across various domains (Sandford 2019). Recently, Steiner-Khamsi (2025) shows the importance of temporality in education policy transfer: a reform’s *emergence* depends on its historical moment, its anticipatory future frameworks, and its position in a sequence of interactions across levels (global, national, and local); its *reception* then hinges on local timing (opportune conditions), longevity (expected lifespan), and the relative age of the reform upon arrival. Thus, the present is where inherited pasts and imagined futures meet. Only by tracing that temporal interplay – emergence, reception, and the pace of diffusion – can we understand how change takes hold and endures.

The CHER 2024 conference theme was also shaped by its unique venue: the ‘millennial’ University of Luxembourg, founded in 2003 and located at Esch-Belval, a historic steelmaking site central in the early institutionalisation of European integration. Luxembourg’s creation of a national university amid Europeanisation and the knowledge economy highlights key issues of governance, funding, and internationalisation (Braband and Powell 2021; Harmsen and Braband 2021). The country’s tradition of student mobility (and now world-leading rates of international student mobility), strategic global recruitment, and investment in science capacity-building underscore the importance of vision and resources in diversifying the economy and strengthening research-oriented higher education (Kmiotek-Meier and Powell 2023; Kmiotek-Meier, Karl, and Powell 2020).

Thus, the call for papers and the conference venue encouraged participants to reflect on their contextual and disciplinary perspectives on the ideas of future(s). In this sense, future(s) can be viewed not only as a temporal dimension but also as a socially constructed analytical category (Abbott 2001; Adam 1998; Adam and Groves 2007; Bennett and Burke 2018) as well as a governance tool (Guston 2013; Kallo and Välimaa 2025). Thus, we invited explorations of how conceptualisations of the future shape and (re)define HE&S in the short, medium, and long terms, with differences in these timescales.

While challenging to (correctly) anticipate future developments, we identified several key themes and potential directions deserving of discussion: The expanding influence of digitalisation, coupled with the continuous growth of technological advancements across various societal sectors, bringing about profound changes to higher education and labour markets (see e.g. Komljenovic et al. 2025). Consequently, there is a pressing need to redefine teaching and learning models to adjust and broaden students’ skills portfolios and offer more flexible learning options to cater to diverse learner needs at the same time that generative AI demands new approaches to integrate digital resources while maintaining the development of individual capabilities (see e.g. du Plooy, Casteleijn, and Franzsen 2024; OECD 2023; Qian 2025). As higher education enrolments and international student mobility continue to rise, despite nationalist interventions (Lohse 2024; Papatsiba and Marginson 2025), universities in numerous countries, such as Germany,

are institutionalising their diversity, equity, and inclusion programmes to compete while others, like the United States, face contemporary pressure to deinstitutionalise these (Moser et al. [in press](#)). The emergence of big data, data sharing, and open access will continue to facilitate knowledge production (see e.g. Kwak and Chankseliani [2024](#)), broader questions of widening participation, sustainable funding models, and evaluation (quality assurance) will continue to reshape higher education, even if quality in HE&S remains challenging to define (see e.g. Cardoso, Rosa, and Stensaker [2016](#); Harris-Huermert et al. [2024](#); Laudel [2024](#)). Alongside the threat of deepening global disparities and inequalities across systems, not everywhere are diversity, equity, and inclusion (DEI) initiatives threatened; indeed, in some contexts these are being (strongly) institutionalised (Cumming, Miller, and Leshchinskaya [2023](#)) and shape collaboration and competition patterns as well as democratise access to scientific research and educational resources, alongside global stratification (see e.g. Al-Raei and Azmeh [2024](#)). As the funding of HE&S has grown to limits in numerous contexts, emergent models of cooperation and specific collaborations across levels – institutional, organisational, individual – will reinforce regionalisation (within Asia, Europe, and other regions) and globalisation developments (see e.g. Knight [2024](#)).

In diverse contexts, populist and new nationalist movements question science's legitimacy and authority, escalating challenges to academic freedom (Craciun [2025](#); Fernandez and Hutchens [2025](#); Rónay et al. [2026](#)). The climate crisis urges all of us to consider our own actions and the development of alternative solutions, with universities occupying a central position in shaping educational content for sustainability and climate change mitigation and adaptation as well as in supplying critical evidence to inform and orient social and political action (Leal Filho et al. [2023](#)).

These examples emphasised some of the current trends and anticipated challenges that place (intense) pressure on HE&S and demand problematising and resolutions from within. Yet, as we have learned from recent financial crises, the COVID-19 pandemic, and ongoing conflicts, the future is always uncertain – rarely unfolding as we plan or predict. In fact, how could we know during our conversations at CHER 2023 that just one month later, on 7 October, the Hamas attack on a music festival in Israel would ignite yet another devastating war in Gaza and lead to what has since been qualified by the United Nations a genocide (OHCHR [2024](#)). Nor could we have foreseen with certainty that, two months after CHER 2024, Trump would indeed win the 2024 U.S. presidential election – casting a long shadow of geopolitical unpredictability – and domestic attacks on academic freedom and university autonomy and funding (Chykina et al. [2025](#)). These moments underscore the inherent volatility of our times and reinforce the urgency of critically engaging with the future(s) as a domain of both academic inquiry and institutional governance.

The idea of future(s) has also permeated policymaking, as witnessed in (supra)national action plans for the upcoming years or decades (e.g. Sustainable Development Goals, European Commission Framework Programmes), the establishment of (inter)national organisations to ponder and forecast future developments and their heightened activities in educational research and policymaking (e.g. OECD, UNESCO) or even international meetings and conferences to redefine agendas and steer the directions of policymaking and practice to achieve identified goals (see Berten and Kranke [2022](#); Elfert and Ydesen [2024](#); Marques [2024](#); Zapp, Marques, and Powell [2018](#)).



Viewing the future not merely as a temporal horizon but as a socially constructed category and as a governance tool reveals its power in shaping contemporary politics, society, and institutional practice. In efforts to manage uncertainty, attempts to stabilise or ‘certify’ what is ontologically unknown often give rise to dominant imaginaries as well as space for alternative futures. Rather than prescribing a singular, linear trajectory, this perspective invites recognition of a multiplicity of imagined and imaginable futures (Jasanoff and Kim 2015). In parallel, the succession of interrelated crises – ranging from global pandemics and armed conflicts to ecological collapse and technological disruption – is actively reshaping the institution(s) and organisations of HE&S. Demanding solutions to wicked problems, these crises expose systemic vulnerabilities. Simultaneously, they accelerate transformation and prompt the redefinition of institutional missions, governance arrangements, and societal roles. Although path dependencies and institutionalised scripts – across global, regional, national, and local levels – continue to exert strong influence, engaging with future(s) as an analytical category enables critical interrogation of prevailing assumptions, dominant trajectories, and the normative foundations of HE&S policymaking and organisational decision-making.

During the conference, theoretical and empirical contributions provided insights into the future(s) across key domains: higher education, research and innovation, third mission and impact, as well as governance and internationalisation. This special issue brings together contributions that – though not equally explicitly addressing the future(s) theme – collectively illuminate the contemporary pressures, transformations, and reimagined possibilities currently reshaping HE&S. In what follows, we explore these dynamics through seven original studies and their shared concerns with temporality, governance of HE&S, and institutional change.

## 2. Problematising HE&S: what the contributions reveal about the present and future(s)

Taken together, the contributions to this special issue trace how HE&S future(s) are actively made. Vettori and Warm (2025) argue that universities don’t just endure time, they strategise it. Using 44 Austrian performance agreements across two cycles (2019–21; 2022–24), they show how institutions deploy *chronostrategies* to manage accountability and regain room for maneuver: *planning contingently* (on other institutions, on funding, on initial outcomes), *promising better* (open-ended upward commitments), *blurring time* (atemporal wording), and *committing to continue* (recasting ongoing routines as new objectives). Milestones are deliberately under-specified and loosely coupled, allowing both universities and ministry to reframe expectations within short funding cycles. Conceptually, they shift from chronopolitics to a chronostrategic lens, concluding that universities ‘play with perpetuity’ – there is always a next cycle – thereby making futures through temporal work rather than merely submitting to it. For us, the takeaway is clear: *time* itself is a governance technology, and the futures of HE&S are actively produced through institutional and organisational control of temporal horizons.

If temporal work enables future(s) from within, policy shocks can redraw them from without. In the study by Wakeling, Lopes, and Mateos-González’s (2025), Brexit engineered one of the sharpest, policy-induced ruptures in international student mobility in

decades, collapsing EU first-degree entrants to roughly one-third of prior levels and triggering wide-ranging institutional, economic, and cultural consequences – down to diminishing classroom diversity and circumscribing UK higher education’s ‘soft power’. This shock did not rebound in the immediate years after full Brexit (unlike past UK fee shocks), suggesting long-lasting effects on mobility flows, finances, and opportunity structures. Crucially, the disruption reinforced existing stratification: Russell Group universities were comparatively insulated, while post-92s absorbed the steepest losses, and more ‘academic’ fields fared better than vocational ones. In the authors’ terms, Brexit acts as a sorting mechanism that advantages already prestigious institutions and wealthier sender contexts, with likely enduring consequences for who is mobile, where, and into which programmes. Read against the rise of neo-nationalism and the return of the state (Domingues 2025; Douglass 2021), these findings show how border-hardening politics translate into higher costs, visa frictions, and reputational re-signaling that reconfigure future mobility regimes – an anticipatory trend other systems may face as geopolitical nationalism, competition, and conflict deepens.

Governance architectures also shape the everyday future(s) of academic work. Alarcón, Brunner, and Labraña (2025) offer a nuanced comparative analysis of the academic profession in Ibero-America, focusing on Argentina, Chile, Mexico, and Portugal amid shifting governance paradigms. Drawing on data from the APIKS survey, the article investigates how New Public Management (NPM) reforms have restructured academic work across seven core dimensions – including the teaching / research nexus, governance participation, and job satisfaction. While the analysis does not adopt an explicitly future-oriented lens, it offers critical insights into how dominant policy imaginaries – centred on efficiency, accountability, and performance – are concretely enacted within institutions and reshape the roles, routines, and self-understandings of academics. The findings reveal nationally specific configurations that blend managerial (Argentina, Portugal) and collegial elements (Chile, Mexico), underscoring not only differentiated trajectories but also competing visions for the future of academic work. Some paths appear increasingly governed by technocratic logics and metrics-based accountability (Argentina, Mexico), while others retain stronger commitments to collegiality and scholarly autonomy (Chile, Portugal). In this way, the contribution highlights how futures are actively constructed through governance reforms, recalibrating academic subjectivities, institutional cultures, and the meanings attached to academic labour.

In turn, Wilkesmann and Lauer (2025) show that NPM logics have been re-shaping professorial behaviour by making financial necessity the dominant driver of third-party funding applications. Using a discipline-stratified survey, they find that perceived need for third-party funding predicts application volume, while intrinsic motivation and internal/reputational rewards do not. The results depict a shift from autonomy-supportive to controlled, extrinsically oriented motivation, with organisational practices (e.g. involving predoctoral staff in proposal writing) further normalising this orientation. The article is revealing since NPM does not merely measure performance but rather enacts a particular future of academic work – one organised around continuous competition for scarce resources, metricised success, and narrowed epistemic risk-taking (see Marques and Powell 2020; Zapp, Marques, and Powell 2018). The governance choice to increasingly fund via competitive, project-specific grants is thus an enduring



present-device worldwide, with continuous future consequences for research diversity, academic autonomy, career pathways, and sustainability of HE&S.

Digital infrastructures extend these governance dynamics into learning and pedagogy, where future(s) are negotiated as much as they are engineered. Pöysä-Tarhonen (2025) explores the evolving nature of hybrid learning spaces in higher education, positioning them within the post-digital era – in which digital technologies are far from simple or separate tools but deeply embedded in everyday processes of academic life. Rather than viewing hybridity as a simple blend of online and offline teaching, the paper reframes hybrid spaces as fluid, socially constructed environments shaped by the dynamic interplay of people, technologies, and material conditions. Drawing on spatial and sociomaterial perspectives, this contribution introduces the concept of *geographies of collaboration* to highlight how learning is enacted through relational, embodied, and temporally situated experiences. This framing underscores the importance of moving beyond narrow definitions of educational competence to support value-driven capabilities – such as ethical collaboration, care, and social responsibility. Therefore, designing high-quality hybrid learning environments requires more than just technological access – rather, it demands an intentional focus on the social, on the ways in which students inhabit, move through, and experience learning spaces, more than ever digitised. Ultimately, Pöysä-Tarhonen calls for a reimagining of higher education that prioritises sustainable, inclusive, and collaborative futures, urging organisations to embrace hybridity not as a technical fix but as a catalyst for pedagogical and societal transformation.

However, such transitions, indeed transformations, are not completed without defiance. In their exploration of resistance to digitalisation within universities, Deacon and colleagues (2025) unpack the complex interplay between organisational change and individual agency, drawing on interviews with academic and professional staff across eight case studies from four European countries (Austria, Estonia, Germany, and the UK). While digital transformation is often framed as a self-evident route to organisational modernisation and future-readiness, the authors challenge this linear imaginary by foregrounding resistance as a legitimate, multifaceted response. Importantly, they unpack individual-level responses that range from feelings of being overwhelmed and fear of obsolescence to experiences of ideological conflict with institutional (and commercially driven) narratives of digital inevitability. Simultaneously, this contribution highlights organisational countermeasures that could mitigate resistance, as in the case of motivation through recognition and acknowledgment and engagement with critical discussions about educational technology elements (see also Laufer et al. 2025). These affective and cognitive responses reveal the emotional labour and identity threats posed by rapid digit(al)isation, especially when accelerated change may outpace individuals' capacity to adapt and institutions fail to engage meaningfully with underlying concerns.

Finally, Berghäuser and colleagues (2025) investigated how Germany, higher education organisations conceptualise and communicate their role in knowledge transfer (KT) through their official mission statements. The study analyses 145 mission statements to uncover how universities frame their third mission alongside teaching and research. The authors find that KT is often ambiguously defined, with significant variation between organisational forms (e.g. research universities, universities of applied sciences). Moreover, mission statements reveal considerable variation in how German

universities approach KT, both in terms of its overall prominence and thematic direction. In many cases, knowledge transfer is mentioned only marginally, indicating a generally low level of emphasis. Ultimately, the paper highlights a disconnect between the rhetorical visibility of KT in mission statements and the lack of clarity regarding its practical implementation or broader societal aims. By revealing the fragmented and often ambiguous ways KT is framed in organisational mission statements, the contribution underscores how universities grapple with articulating their future societal roles beyond simple technological transfer, highlighting both the contested nature of various commitments of the third mission and the uncertainties surrounding how universities imagine and enact their contribution to an evolving knowledge society.

Taken together, the selected contributions to the CHER 2024 conference show that the present and future(s) in HE&S are not merely forecasted but enacted – through temporal strategies, incentive regimes, hybrid learning infrastructures, and contested public missions – while being reconfigured by geopolitical, health, and financial shocks. The next section distils the main takeaways across these themes, clarifying where pressures converge, where trajectories diverge, and what these various pathways imply for the futures we have been and continue (re)building.

### 3. Mapping future directions in HE&S: key themes and research avenues

Across these studies, the future(s) of HE&S emerge not as simple forecasts but as collectively imagined, negotiated, and enacted – always amid uncertainty. Universities and policymakers must balance short-term policy cycles with long-term investment, yet short-termism remains a risk. Governance is still shaped by NPM's legacy of precarity and metrics, though post-NPM reforms increasingly emphasise networks, participation, and public value. Digitalisation is uneven and contested, requiring attention to user experience and social dynamics. Policy shocks like Brexit and pandemics expose vulnerabilities and reinforce inequalities, highlighting the need for resilience and stable funding (see Lohse 2024). Universities' societal roles remain unsettled, with gaps between rhetoric and practice, especially in public engagement. Recognising future(s) as multiple and contested enables more critical, inclusive approaches, and new institutional theory can clarify how imagined futures are legitimised and enacted.

#### *Temporal dynamics: beyond short-termism, toward temporal-fit*

One key theme and research direction concerns temporal dynamics – socially organised properties of time – especially, in matters of *time frames* (horizon, scales) and *tempo* (speed/acceleration) (see Adam 1998) and reforms (Steiner-Khamsi 2025).

Vettori and Warm (2025) show how universities strategically manage *time frames* in performance agreements to retain room for maneuver – treating time itself as a governance technology that co-produces institutional futures. Across Europe, these 'chronopolitics' or set of 'chronostrategies' are embedded in multi-year steering instruments enacted and negotiated between ministries and organisations. For example, Norway's development agreements that set broad, adjustable targets (Elken and Borlaug 2024) are nested within broader national higher education strategies that typically run on four to seven-year horizons or align with electoral cycles. Future research should

examine how such instruments not only give actors tactical room to pace, defer, and reframe *time frames* but also how they are part of a larger phenomenon that constrains the long-term development of HE&S sectors: short-termism.

By short-termism – or *policy* (and *organisational*) *myopia* – we refer to a tendency to prioritise short-run interests over long-term societal benefits, limiting the capacity to anticipate and act under uncertainty: the ‘difficulty of seeing far enough into the future to discern its general shape ... to properly anticipate and plan in the present’ (Nair and Howlett 2017, 104; see also Boston 2021; Jacobs 2012). Such myopia can generate policy or institutional rigidity and, ultimately, failure. The literature suggests this is a cross-cutting phenomenon rooted in interacting psychological, political, and societal mechanisms: present-bias and uncertainty dampen support for long-term investments; electoral incentives favour immediate gains; future generations lack representation; powerful interests resist near-term costs; and information asymmetries and ideological conflict obstruct sustained action (Boston 2021; MacKenzie 2016; Sewchurran, Dekker, and McDonogh 2019; Sunter and Ilbury 2022).

Impacts vary within HE&S. In domains that require durable coordination and long investment cycles – capacity building, research infrastructure, doctoral and early-career tracks, widening participation, international partnerships and research collaboration, and campus decarbonisation – short-termism poses particularly high risks because meaningful outcomes accrue over years or decades. The risks are compounded where evidential infrastructures are weak or fragmented (e.g. limited longitudinal student and graduate data, sparse indicators on research culture and engagement, or inconsistent evaluation of KT), making it harder to gauge problem scale, manage uncertainty, and model plausible scenarios (Boston 2021; White 2024). Amid growing discussion on countering short-termism, promising responses include embedding anticipatory approaches – foresight, scenarios, horizon scanning, and longer-horizon, mixed-methods evaluation – into routine planning and review cycles, alongside institutional reforms that protect long-term goals from short-cycle political and organisational pressures (Boston 2021; Van Assche, Verschraegen, and Gruezmacher 2021).

Another salient dimension is *tempo* – the speed and pacing of change. International organisations and national governments often cast digitalisation and AI as urgent imperatives; yet rhetorical urgency becomes institutional change only when it aligns with organisational time – routines and calendars, resource cycles, evaluation rhythms, and the absorptive capacity required to learn, adjust, and retool (Cohen and Levinthal 1990). In HE&S, where universities and research systems exhibit pronounced structural inertia, such temporal misfits are common (Hannan and Freeman 1984). When the policy clock runs faster than institutional tempos, the result is overload and resistance rather than durable adoption. This is precisely what the study by Deacon and colleagues (2025) reveals, meaning that the pace and mode of digitally driven change generate affective and ideological resistance, reminding us that temporal acceleration reshapes identities and work, not only workflows. Taken together, these insights position temporality as a core axis along which governance, culture, and agency are negotiated. A research and policy agenda on *temporal fit* is therefore critical: how to pace, phase, and sequence digital and AI initiatives so they align with existing governance cycles; how to build in slack to provide capabilities for learning; and how to cultivate *temporal ambidexterity* – the ability to meet near-term pressures while safeguarding long-horizon

academic missions (see Wang et al. 2019). In short, the question is not only *what* to change, but *how* – and at *what speed(s)*.

Ultimately, sustaining long-term planning horizons is the surest way to avoid governing by (permanent) urgency, since short cycles without a credible future perspective accumulate ‘temporal debt,’ forcing systems to firefight rather than build (and learn).

### ***Reimagining the public sector and HE&S***

A second avenue turns to governance logics and professional future(s). Alarcón, Brunner, and Labraña (2025) map hybrid managerial / collegial arrangements across Ibero-America, showing how national contexts assemble different trajectories for academic roles and authority – some tilting toward metrics and technocratic control, others sustaining collegial autonomy. Wilkesmann and Lauer (2025) add a motivational lens, as they show that also within NPM architectures, financial necessity rather than intrinsic motivation drives grant-seeking, normalising extrinsically oriented behaviour and narrowing epistemic risk-taking. Both studies signal what is at stake in contemporary academic careers: rising precarity (especially for early-career staff); workload intensification and long hours; appraisal systems biased toward research outputs and bibliometrics (with weak, uneven recognition of teaching, service, and engagement); patchy professional learning (especially for pedagogy and digital competence); non-linear but sticky career paths with limited inter-sectoral mobility; persistent gendered and contractual inequalities; uneven internationalisation experiences; and a worrying decline in academic freedom (see OECD 2024; Scholars at Risk 2025). Attacks on academic freedom also have considerable negative impacts on collaboration and thus the quantity and quality of science globally (Chykina et al. 2025).

Such career dynamics are not accidental; they reflect the long arc of NPM – a reform wave gaining force in the late 1980s and diffusing widely in the 1990s. Its core instruments – performance-based funding, audit and quality assurance, competition and market analogies, and contractual flexibilization – recalibrated incentives inside universities, privileging measurable research productivity, grant capture, and entrepreneurialism (see Hood 1991; Marques et al. 2017; Pollitt and Bouckaert 2004; Zapp, Marques, and Powell 2018). That legacy still structures behaviour and careers – even where formal reforms have moved on – as both the contributions here and the OECD’s syntheses at the global level attest.

Despite critiques and claims of obsolescence (Pollitt and Bouckaert 2017), the NPM toolkit remains deeply institutionalised in many systems of HE&S. Institutional theory reminds us how difficult it is to reverse a path once set. Yet treating futures as shapeable also opens space to imagine and nurture alternatives (Funk and Karlsson 2020) – new models can gain legitimacy, layer onto existing rules, and, over time, displace or convert them. The task, then, is double: keep tracking NPM’s long-tail effects while identifying emergent alternatives.

In practice, these alternatives appear under the (admittedly fuzzy) banner of post-NPM reforms.<sup>1</sup> For instance, *new public governance* emphasises solving ‘wicked’ problems through inter-organisational cooperation, coordination, and trust-based relationships across public and private actors – here, universities, funders, regions, and civic/industry partners, inviting us to treat mission and challenge-driven (trans)national

alliances (see Fehrenbach 2023; Marques and Graf 2024) and shared infrastructures as career and capability platforms rather than mere competition devices. By advancing holistic coordination, post-NPM aims to overcome policy fragmentation, a pervasive problem in multi-level administrations that distorts decision-making across policy domains (Biesbroek 2021; Marques, Graf, and Rohde-Liebenau 2023). In HE&S this shows up as efforts to stitch back what NPM split: teaching, research, and third mission – via inter-institutional coordination across ministries, funding councils, and quality assurance agencies and via integration tools, such as shared indicators, interoperable data, and responsible metrics, so that ideas and decisions may travel across domains.

A complementary element argues for a *public service logic*, meaning that services should be created and consumed in use, and their value co-created by providers and users. However, treating degrees, courses, publications, and patents as mere outputs misses where value forms: the learning encounter, research collaboration, and engagement interface. Practically, this implies participatory curricula and assessment, research living labs, citizen and open science, and a shift from throughput metrics to public-value outcomes (capabilities gained, problem-solving within communities, quality of user experience), supported by autonomy, service design, temporal fit, and data-governance rules with students, staff, and publics (Denhardt and Denhardt 2000 Klemenčič 2014). A service-logic approach would re-design processes with these publics, embedding plural user needs into pedagogy, support, and evaluation, so that inclusion is produced in practice, not merely rhetorically promised.

A third aspect reorients strategy toward long-term, collectively defined *public value* rather than output counts, aligning with responsible metrics and narrative CVs and enabling parity of esteem for teaching, research, and third mission (Brewis and Marginson 2025; Hicks et al. 2015; Moher et al. 2018). A fourth is *digital-era governance* (Dunleavy et al. 2006) that calls for reintegration and user-centred, end-to-end processes that reduce administrative load and improve data interoperability, precisely the redesign that addresses the tempo, identity, and participation frictions surfaced by Deacon and colleagues (2025). In this collection, Pöysä-Tarhonen's (2025) essay points in this direction, as it reframes learning through post-digital geographies, arguing that collaborative futures depend on how space, technology, and relations are configured in practice, and linking these to value-laden capabilities aligned with sustainability agendas. By contrast, Berghäuser and colleagues (2025) diagnose the mission layer, since German universities' KT statements remain fragmented, signalling uncertainty about aims beyond techno-economic logics and unsettled conceptions of public value to which transfer ought to answer. This ambiguity sustains organisational decoupling (Bromley and Powell 2012), as mission claims travel faster than the infrastructures, routines, and incentive regimes needed to realise broader social, cultural, and civic value. Together, these contributions specify the alignment problem at the heart of a public value agenda in HE&S: missions must be translated into user-facing designs and anchored in governance instruments that credit co-produced outcomes. Put differently, mission statements risk to remain mere window dressing devices unless purposes (mission), publics (users and co-production partners), and practices (design and incentives) are monitored over time.

This post-NPM toolkit implies a shift from control to capability and from narrow productivity to public value, without losing rigour or responsibility. Systems can rebalance assessment through multi-dimensional, narrative approaches that recognise the full

portfolio of academic contributions and track effects on careers, risk-taking, diversity, and academic freedom; stabilise careers with ‘smart flexibility,’ testing whether coordination-plus-public-value hybrids reduce precarity while sustaining innovation; and build networked capacity via shared doctoral schools, core facilities, and open science platforms as levers for capability and inclusion rather than mere scale. They can redesign digital quality by applying user-centred, end-to-end principles to research and learning journeys and by measuring adoption quality, not just rollout speed, with careful attention to temporal fit. They can protect autonomy through legal-institutional safeguards that align freedom with societal missions. Aligning time horizons by integrating anticipatory tools (scenarios, horizon scanning) and longer-cycle compacts can help to curb short-termism – linking governance back to the temporal dynamics that run through this special issue.

### ***Resilience by design: protecting HE&S from shocks***

While re-imagining HE&S and entire public sectors typically relies on periods of relative stability, incremental, path-dependent change that allows capability-building and learning across cycles, a third research avenue lies in the idea that policy ruptures can (rapidly) redraw the parameters within which organisations operate. Brexit, analysed by Wakeling, Lopes, and Mateos-González (2025) as a ‘revelatory policy shock,’ re-sorted student flows, institutions and subjects – dampening EU degree entrants, insulating high-status universities, and deepening sectoral stratification – effects that did not quickly rebound. In future(s) terms, neo-nationalist border politics do not merely interrupt mobility; they reconfigure its long-run opportunity structures, with implications for financing models, programme portfolios, and the social diversity of classrooms (Chank-seliani 2025).

Currently, the United States (U.S.) exemplifies how quickly and deeply domestic politics and policy shifts can reshape opportunity structures in HE&S. Scientific research, international mobility, and academic freedom are under unprecedented attack, threatening not only U.S. progress but also the global research ecosystem built upon collaboration (Chykina et al. 2025; Douglass 2025; Scholars at Risk 2025). The Trump administration’s withdrawal of federal research funding from leading universities (Center for American Progress 2025) marks a sweeping assault on the university-science model that has long driven U.S. innovation (Baker and Powell 2024). Restrictions on international student visas and migration further diminish the country’s appeal for educational exchange and undermine higher education’s potential. These disruptions risk severing financial lifelines, shrinking the research talent pool, and unravelling collaborative networks essential to scientific discovery. The impact extends beyond immediate funding losses, with three-quarters of scientists considering leaving the U.S. (Witze 2025). Such reforms jeopardize the global infrastructure of science, which depends on open knowledge exchange and international partnerships, especially those rooted in universities (Baker and Powell 2024). If the U.S. retreats from supporting universities and academic freedom, it risks de-internationalising science and undermining decades of progress on global challenges and solving wicked problems.

Comparable dynamics of political shifts, ideological agendas, and resource retrenchment that are increasingly destabilising HE&S are visible in other countries: Canada’s



federal cap on study permits and a narrower post-graduation work pathway have forced organisations to rebalance recruitment and budgets (Reichert 2025); Australia's migration resets and proposed student-visa caps tied to housing and labour-market capacity have similarly injected volatility (Norton 2024); in the Netherlands, a mix of proposed cuts to science funding, restrictions on English-medium provision, and enhanced security screening for researchers has raised concerns about academic autonomy and international appeal (La Rocca 2025); and Hungary remains an emblematic case – sustained government pressure on the Central European University forced its relocation from Budapest to Vienna, signalling the costs of politicising the sector.

Across these settings, the pattern is similar. Rapid policy turns – on funding, visas, language barriers, or shifting governance architectures – reconfigure mobility, research capacity, and HE&S's global embeddedness so essential to scientific discovery. Shielding HE&S from neo-nationalist swings and authoritarianism (see Douglass 2021) begins with stability: entrench institutional autonomy in law, fund through arm's-length councils, and use counter-cyclical buffers so pipelines, infrastructure, and partnerships are protected when politics lurches. It also requires anticipatory capacity, enforceable protections for academic freedom and student support; independent quality assurance; and a public value narrative that links universities to local prosperity and social cohesion. Comparative legal-institutional analyses can model how autonomy, freedom protections, and funding architectures shape resilience. Organisational studies should examine portfolio and temporal strategies – diversification, alliance participation, and temporal fit – through mixed-methods evaluations of scenario planning, horizon scanning, and crisis playbooks.

#### 4. Inviting a conversation for all – future(s) and institutional theory

When defining the CHER 2024 theme, we intentionally left open the bridge between future(s) thinking and social science approaches to HE&S, inviting the field to further develop this intersection. The concept of future(s), especially as embedded in sociotechnical imaginaries, offers fertile ground for analysing institutional change. Institutional theory has long focused on the diffusion of ideas, norms, and templates across fields (DiMaggio and Powell 1983; Schmidt 2008; Scott 2014). Recently, international organisations have actively shaped futures agendas – through OECD's Strategic Foresight, UNESCO's Futures of Education, and the European Commission's reports – standardising what 'future-readiness' means (Berten and Kranke 2022; European Commission 2020–2025; OECD 2025; UNESCO 2021). National governments are also institutionalising foresight in policymaking (Koskimaa and Raunio 2022).

From an institutional theory perspective in HE&S (see Cai and Yohannes 2015; Meyer and Powell 2020; Powell 2020), this expanding infrastructure prompts analysis not only of how imaginaries are created and diffused, but also of their effects. Coercive, normative, and mimetic isomorphism (DiMaggio and Powell 1983) operate together, raising questions about the implications of 'future-ready' templates for HE&S (Kallo and Välimaa 2025). As norms and rules about future(s) take shape, they form a proto-logic – a cross-cutting order that reconfigures established institutional logics and sectoral arrangements (e.g. Cai and Mountford 2022; Friedland and Alford 1991; Thornton and Ocasio 2008). Understanding HE&S as an 'inter-institutional system' marked by differentiation

and contradiction (Thornton and Ocasio 2008) helps clarify how these proto-logics reshape state, market, and professional logics – amplifying state authority, energising market reputational mechanisms, and redefining professional expertise. As such institutionalisation processes unfold at macro and meso levels, the lens of institutional work is crucial to specify how sociotechnical imaginaries take root – or fail to (Lawrence and Suddaby 2006; Lawrence, Leca, and Zilber 2013). This shifts the focus from mere adoption of foresight to the kinds of work that embed anticipatory elements in organisations. Institutional entrepreneurs – boundary-spanning actors in ministries, research councils, and university leadership – play key roles in legitimising and protecting new templates (Battilana, Leca, and Boxenbaum 2009), while guardians and critics – such as professional associations and audit bodies – shape whether foresight remains merely ceremonial or becomes materially consequential (Zietsma and Lawrence 2010). These sketches illustrate just a few of the many possible lines of cross-fertilisation between institutional theory and future(s) studies. Engaging institutional theory and the social science with uncertainty opens space for renewed theory building: treating institutions as temporally situated, examining projective agency, and tracing how time and imagined future(s) become instruments of policymaking and contestation. Above all, this is a conversation to be carried forward – by many, and for future generations – to ensure the continuous sustainability of HE&S.

## Note

1. Other key notions that hold similar criticisms and alternatives are ‘digital-era governance’, ‘joined-up government’, ‘whole-of-government’, or ‘Neo-Weberian state’ (see Reiter and Klenk 2019).

## Disclosure statement

No potential conflict of interest was reported by the author(s).

## Funding

This work was supported by the FNR – Luxembourg National Research Fund under Grant RESCOM/2024/SC/18827667 and by the Ministry of Economy of the Luxembourg Government.

## ORCID

Marcelo Marques  <http://orcid.org/0000-0001-8810-2412>

Justin J. W. Powell  <https://orcid.org/0000-0002-6567-6189>

## References

- Abbott, Andrew. 2001. *Time Matters: On Theory and Method*. Chicago: University of Chicago Press.
- Adam, Barbara. 1998. *Timescapes of Modernity: The Environment and Invisible Hazards*. London: Routledge.
- Adam, Barbara, and Chris Groves. 2007. *Future Matters: Action, Knowledge, Ethics*. Leiden: Brill.

- Alarcón, Mario., José Joaquín Brunner, and Julio Labraña. 2025. "Between Managerialism and Collegiality: The Transformation of the Academic Profession in Ibero-America." *European Journal of Higher Education*: 1–21. <https://doi.org/10.1080/21568235.2025.2491076>.
- Al-Raeei, Marwan, and Chadi Azmeh. 2024. "The Influence of Open Access on Institutional Scientific Research Output in MENA Countries: A Comparative Analysis." *SAGE Open* 14 (4). <https://doi.org/10.1177/21582440241288730>.
- Baker, David P. 2014. *The Schooled Society: The Educational Transformation of Global Culture*. Stanford: Stanford University Press.
- Baker, David P., and Justin J. W. Powell. 2024. *Global Mega-Science: Universities, Research Collaborations, and Knowledge Production*. Stanford: Stanford University Press.
- Baker, David P., Justin J. W. Powell, Abdul B. Adeel, and Marcelo Marques. 2025. "Is More Science Really Less Science? The Scientization of Science, 1900–2020." *Minerva*. <https://doi.org/10.1007/s11024-025-09602-1>.
- Battilana, J., B. Leca, and E. Boxenbaum. 2009. "How Actors Change Institutions: Towards a Theory of Institutional Entrepreneurship." *Academy of Management Annals* 3 (1): 65–107. <https://doi.org/10.5465/19416520903053598>.
- Ben-David, J. 1990. *Scientific Growth*. Berkeley: University of California Press.
- Bennett, Anna, and Penny J. Burke. 2018. "Re/Conceptualising Time and Temporality: An Exploration of Time in Higher Education." *Discourse: Studies in the Cultural Politics of Education* 39 (6): 913–925. <https://doi.org/10.1080/01596306.2017.1312285>.
- Berghäuser, Hendrik., Tabea Krauter, Christopher Stolz, Phillipp Komaromi, and Benjamin Butz. 2025. "Mapping Knowledge Transfer of German Universities – an Analysis of 145 Mission Statements." *European Journal of Higher Education*: 1–23. <https://doi.org/10.1080/21568235.2025.2517237>.
- Berten, John, and Matthias Kranke. 2022. "Anticipatory Global Governance: International Organisations and the Politics of the Future." *Global Society* 36 (2): 155–169. <https://doi.org/10.1080/13600826.2021.2021150>.
- Biesbroek, Robbert. 2021. "Policy Integration and Climate Change Adaptation." *Current Opinion in Environmental Sustainability* 52:75–81. <https://doi.org/10.1016/j.cosust.2021.07.003>.
- Boston, Jonathan. 2021. "Assessing the Options for Combatting Democratic Myopia and Safeguarding Long-Term Interests." *Futures* 125:102668. <https://doi.org/10.1016/j.futures.2020.102668>.
- Braband, Gangolf, and Justin J. W. Powell. 2021. "European Embeddedness and the Founding of Luxembourg's 21st Century Research University." *European Journal of Higher Education* 11 (3): 255–272. <https://doi.org/10.1080/21568235.2021.1944251>.
- Brewis, Elisa, and Simon Marginson. 2025. "Introduction to the Special Issue: 'The Public Good of Higher Education: A Comparative Study'." *Higher Education* 89: 1–27. <https://doi.org/10.1007/s10734-024-01346-3>.
- Bromley, Patricia, and Walter W. Powell. 2012. "From Smoke and Mirrors to Walking the Talk: Decoupling in the Contemporary World." *Academy of Management Annals* 6 (1): 483–530. <https://doi.org/10.5465/19416520.2012.684462>.
- Brooks, Rachel, and Lee Rensimer. 2025. "Higher Education Actors' Responses to the Ukraine-Russia Conflict: An Analysis of Geopolitical Spatial Imaginaries." *Journal of Education Policy* 40 (1): 111–129. <https://doi.org/10.1080/02680939.2024.2334945>.
- Brown, Gordon, Mohamed A. El-Erian, Michael Spence, and Reid Lidow. 2023. *Permacrisis: A Plan to Fix a Fractured World*. London: Simon & Schuster.
- Cai, Yuzhuo, and Nicola Mountford. 2022. "Institutional Logics Analysis in Higher Education Research." *Studies in Higher Education* 47 (8): 1627–1651. <https://doi.org/10.1080/03075079.2021.1946032>.
- Cai, Yuzhuo, and Mehari Yohannes. 2015. "The Use of Institutional Theory in Higher Education Research." In *Theory and Method in Higher Education Research*, edited by Jeroen Huisman and Malcolm Tight, 1–25. Emerald: Bingley. <https://doi.org/10.1108/S2056-375220150000001001>

- Cardoso, Sónia, Maria J. Rosa, and Bjørn Stensaker. 2016. "Why Is Quality in Higher Education Not Achieved? The View of Academics." *Assessment & Evaluation in Higher Education* 41 (6): 950–965. <https://doi.org/10.1080/02602938.2015.1052775>.
- Center for American Progress. 2025. *Mapping Federal Funding Cuts to U.S. Colleges and Universities*. <https://www.americanprogress.org/article/mapping-federal-funding-cuts-to-us-colleges-and-universities/>.
- Chankseliani, Maia.. 2025. "What We Stand to Lose When Foreign Students Are Seen as a Threat." *Nature* 643 (8070): 10. <https://doi.org/10.1038/d41586-025-02032-9>.
- Chykina, Volha, David P. Baker, Frank Fernandez, and Justin J. W. Powell. 2025. "Research Breakthroughs Often Come Through Collaborations – Attacks on Academic Freedom Threaten This Vital Work." *The Conversation*, November 18. <https://theconversation.com/research-breakthroughs-often-come-through-collaborations-attacks-on-academic-freedom-threaten-this-vital-work-266644>
- Cohen, Wesley M., and Daniel A. Levinthal. 1990. "Absorptive Capacity: A New Perspective on Learning and Innovation." *Administrative Science Quarterly* 35 (1): 128–152. <https://doi.org/10.2307/2393553>.
- Craciun, Daniela. 2025. "Academic Freedom at Risk: Creating Centres of Resistance." *University World News*, June 18. <https://www.universityworldnews.com/post.php?story=20250618111454838>.
- Cumming, Tammie, M. David Miller, and Isana Leshchinskaya. 2023. "DEI Institutionalization: Measuring Diversity, Equity, and Inclusion in Postsecondary Education." *Change: The Magazine of Higher Learning* 55 (1): 31–38. <https://doi.org/10.1080/00091383.2023.2151802>.
- Deacon, Bronwen, Melissa Laufer, Maricia A. Mende, Tiana Tschache, and Len Ole Schäfer. 2025. "Resisting Digital Change at the University: An Exploration into Triggers and Organisational Countermeasures." *European Journal of Higher Education*: 1–24. <https://doi.org/10.1080/21568235.2025.2512735>.
- Denhardt, Robert B., and Janet Vinzant Denhardt. 2000. "The New Public Service: Serving Rather than Steering." *Public Administration Review* 60 (6): 549–559. <https://doi.org/10.1111/0033-3352.00117>.
- DiMaggio, Paul J., and Walter W. Powell. 1983. "The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields." *American Sociological Review* 48 (2): 147–160. <https://doi.org/10.2307/2095101>.
- Domingues, José Mauricio. 2025. "Multiple Crisis, New Responses: A New Phase of Modernity." *International Sociology* 40 (4): 608–627. <https://doi.org/10.1177/02685809251351281>.
- Douglass, John Aubrey. 2021. *Neo-Nationalism and Universities: Populists, Autocrats, and the Future of Higher Education*. Baltimore: Johns Hopkins University Press. <https://doi.org/10.1353/book.85165>.
- Douglass, John Aubrey. 2025. "Could Things Get Darker Still for US Higher Education?" *University World News*, September 27. <https://www.universityworldnews.com/post.php?story=20250927061320624>.
- Drori, Gili S., John W. Meyer, Francisco O. Ramirez, and Evan Schofer. 2003. *Science in the Modern World Polity: Institutionalization and Globalization*. Stanford: Stanford University Press.
- Dunleavy, Patrick, Helen Margetts, Simon Bastow, and Jane Tinkler. 2006. "New Public Management Is Dead–Long Live Digital-Era Governance." *Journal of Public Administration Research and Theory* 16 (3): 467–494. <https://doi.org/10.1093/jopart/mui057>.
- du Plooy, Eileen, D. Casteleijn, and D. Franzsen. 2024. "Personalized Adaptive Learning in Higher Education: A Scoping Review of Key Characteristics and Impact on Academic Performance and Engagement." *Heliyon* 10 (21): e39630. <https://doi.org/10.1016/j.heliyon.2024.e39630>.
- Dusdal, Jennifer, and Justin J. W. Powell. 2021. "Benefits, Motivations, and Challenges of International Collaborative Research: A Sociology of Science Case Study." *Science and Public Policy* 48:235–245. <https://doi.org/10.1093/scipol/scab010>.
- Elfert, Maren, and Pravintharan Balakrishnan. 2025. "Crisis Narratives as Drivers of Shifts in the Global Governance of Education." *Globalisation, Societies and Education*: 1–19. <https://doi.org/10.1080/14767724.2025.2547903>.

- Elfert, Maren, and Christian Ydesen. 2024. "Global Governance and the Promissory Visions of Education: Challenges and Agendas." *Comparative Education* 60 (3): 361–376. <https://doi.org/10.1080/03050068.2024.2371701>.
- Elken, Mari, and Siri B. Borlaug. 2024. "Implementation of Ambiguous Governance Instruments in Higher Education." *Higher Education* 88 (3): 1111–1126. <https://doi.org/10.1007/s10734-023-01161-2>.
- European Commission. 2020–2025. *Annual Strategic Foresight Report* (editions 2020–2025). Brussels: European Commission.
- Fehrenbach, Hana. 2023. *Transnational Alliances in Higher Education: Vehicles for Strategic Change or Inertia*. Wiesbaden: Springer VS. <https://doi.org/10.1007/978-3-658-42081-9>
- Fernandez, Frank, and Neal Hutchens. 2025. "Restrictions on US Academic Freedom Affect Science Everywhere." *Nature Human Behaviour* 9 (7): 1303–1304. <https://doi.org/10.1038/s41562-025-02248-9>.
- Frank, David John, and John W. Meyer. 2020. *The University and the Global Knowledge Society*. Princeton: Princeton University Press.
- Frank, David John, Daniel Scott Smith, and John W. Meyer. 2025. "The University: Exalted Institution and Ruined Organization." *Minerva*. <https://doi.org/10.1007/s11024-025-09604-z>.
- Friedland, Roger, and Robert R. Alford. 1991. "Bringing Society Back In: Symbols, Practices, and Institutional Contradictions." In *The New Institutionalism in Organizational Analysis*, edited by Walter W. Powell and Paul J. DiMaggio, 232–263. Chicago: University of Chicago Press.
- Fu, Yuan Chih, Marcelo Marques, Yuen-Hsien Tseng, Justin J. W. Powell, and David P. Baker. 2022. "An Evolving International Research Collaboration Network: Spatial and Thematic Developments in Co-Authored Higher Education Research, 1998–2018." *Scientometrics* 127 (3): 1403–1429. <https://doi.org/10.1007/s11192-021-04200-w>.
- Funck, Elin K., and Tom S. Karlsson. 2020. "Twenty-Five Years of Studying new Public Management in Public Administration: Accomplishments and Limitations." *Financial Accountability & Management* 36 (4): 347–375. <https://doi.org/10.1111/faam.12214>.
- Guston, David H. 2013. "Understanding 'Anticipatory Governance'." *Social Studies of Science* 44 (2): 218–242. <https://doi.org/10.1177/0306312713508669>.
- Hannan, Michael T., and John Freeman. 1984. "Structural Inertia and Organizational Change." *American Sociological Review* 49 (2): 149–164. <https://doi.org/10.2307/2095567>.
- Harmen, Robert, and Gangolf Braband. 2021. "The OECD and Higher Education Policy: Agenda-Setting, Organizational Dynamics and the Construction of Convening Authority." *Higher Education Policy* 34: 582–602. <https://doi.org/10.1057/s41307-019-00153-1>.
- Harris-Huermert, Susan, Michael Hölscher, Justin J. W. Powell, and Johanna Witte. 2024. "Quality in Academia: Concepts, History and Perspectives." *Beiträge zur Hochschulforschung* 46 (1): 12–34. <https://www.bzh.bayern.de/>.
- Hicks, Diana, Paul Wouters, Ludo Waltman, Sarah de Rijcke, and Ismael Rafols. 2015. "Bibliometrics: The Leiden Manifesto for Research Metrics." *Nature* 520 (7548): 429–431. <https://doi.org/10.1038/520429a>.
- Hood, Christopher. 1991. "A Public Management for All Seasons?" *Public Administration* 69 (1): 3–19. <https://doi.org/10.1111/j.1467-9299.1991.tb00779.x>.
- Jacobs, Alan M. 2012. *Governing for the Long Term: Democracy and the Politics of Investment*. Cambridge, UK: Cambridge University Press.
- Jananoff, Sheila, and Sang-Hyun Kim, eds. 2015. *Dreamscapes of Modernity: Sociotechnical Imaginaries and the Fabrication of Power*. Chicago: University of Chicago Press.
- Jules, Tavis D., and Florin D. Salajan. 2025. "Intersecting (Poly)Crises, Intersecting Futures: Reimagining Decolonial Vistas in Comparative and International Education." *Comparative Education Review* 69 (1): 1–17. <https://doi.org/10.1086/735019>.
- Kallo, Johanna, and Jussi Välimaa. 2025. "Higher Education in Nordic Countries: Analyzing the Construction of Policy Futures." *Higher Education* 89 (2): 275–292. <https://doi.org/10.1007/s10734-024-01280-4>.



- Klemenčič, Manja. 2014. "Student Power in a Global Perspective and Contemporary Trends in Student Organising." *Studies in Higher Education* 39 (3): 396–411. <https://doi.org/10.1080/03075079.2014.896177>.
- Kmiotek-Meier, Emilia, Ute Karl, and Justin J. W. Powell. 2020. "Designing the (Most) Mobile University: The Centrality of International Student Mobility in Luxembourg's Higher Education Policy Discourse." *Higher Education Policy* 33 (1): 21–44. <https://doi.org/10.1057/s41307-018-0118-4>.
- Kmiotek-Meier, Emilia, and Justin J. W. Powell. 2023. "Evaluating Universal Student Mobility: Contrasting Policy Discourse and Student Narratives in Luxembourg." *International Studies in Sociology of Education* 32 (2): 466–486. <https://doi.org/10.1080/09620214.2021.2007416>.
- Knight, Jane. 2024. "Higher Education Cooperation at the Regional Level." *Journal of International Cooperation in Education* 26 (1): 101–115. <https://doi.org/10.1108/JICE-09-2023-0021>.
- Komljenovic, Janja, Kean Birch, Sam Sellar, Annika Bergviken Rensfeldt, Joe Deville, Charlie Eaton, Lesley Gourlay, et al. 2025. "Digitalised Higher Education: Key Developments, Questions, and Concerns." *Discourse: Studies in the Cultural Politics of Education* 46 (2): 276–292. <https://doi.org/10.1080/01596306.2024.2408397>.
- Koskimaa, Vesa, and Tapio Raunio. 2022. "Expanding Anticipatory Governance to Legislatures: The Emergence and Global Diffusion of Legislature-Based Future Institutions." *International Political Science Review* 45 (2): 261–277. <https://doi.org/10.1177/01925121221134995>.
- Krücken, Georg, and Frank Meier. 2006. "Turning the University into an Organizational Actor." In *Globalization and Organization: World Society and Organizational Change*, edited by Gili S. Drori, John W. Meyer, and Hokyung Hwang, 241–257. Oxford: Oxford University Press.
- Kwak, Joonghyun, and Maia Chankseliani. 2024. "International Student Mobility and Poverty Reduction: A Cross-National Analysis of Low- and Middle-Income Countries." *International Journal of Educational Research* 128:102458, 1–13. <https://doi.org/10.1016/j.ijer.2024.102458>.
- Kwiek, Marek, Hugo Horta, and Justin J. W. Powell. 2024. "Using Large-Scale Bibliometric Data in Higher Education Research: Methodological Implications from Three Studies." *Higher Education Quarterly* 78 (4). <https://doi.org/10.1111/hequ.12512>.
- La Rocca, Marco. 2025. "Massive Education Cuts in the Netherlands Target International Students: Universities Protest." *Eunews*, April 28, 2025. <https://www.eunews.it/en/2025/04/28/massive-education-cuts-in-the-netherlands-target-international-students-universities-protest>.
- Laudel, Grit. 2024. "Where Do Field-Specific Notions of Research Quality Come From?" *Research Evaluation* 33:rvae027. <https://doi.org/10.1093/reseval/rvae027>.
- Laufer, Melissa, Freia Kuper, Bronwen Deacon, Marvin Sievering, and Len Ole Schäfer. 2025. "Strategic Ambiguities: Exploring the Role of Digitalisation Strategies in University Teachers' Engagement with Educational Technology." *European Journal of Higher Education*: 1–19. <https://doi.org/10.1080/21568235.2025.2486788>.
- Lawrence, Michael, Thomas Homer-Dixon, Scott Janzwood, Johan Rockström, Ortwin Renn, and Jonathan F. Donges. 2024. "Global Polycrisis: The Causal Mechanisms of Crisis Entanglement." *Global Sustainability* 7: e6. <https://doi.org/10.1017/sus.2024.1>.
- Lawrence, Thomas B., Bernard Leca, and Tammar B. Zilber. 2013. "Institutional Work: Current Research, New Directions and Overlooked Issues." *Organization Studies* 34 (8): 1023–1033. <https://doi.org/10.1177/0170840613495305>.
- Lawrence, Thomas B., and Roy Suddaby. 2006. "Institutions and Institutional Work." In *The SAGE Handbook of Organization Studies*, edited by Stewart R. Clegg, Cynthia Hardy, Thomas B. Lawrence, and Walter R. Nord, 215–254. 2nd ed. London: Sage.
- Leal Filho, Walter, Sebastian Weissenberger, Johannes M. Luetz, Javier Sierra, Izabela Simon Rampasso, Ayyoob Sharifi, Rosley Anholon, Joao Henrique Paulinho Pires Eustachio, and Marina Kovaleva. 2023. "Towards a Greater Engagement of Universities in Addressing Climate Change Challenges." *Scientific Reports* 13 (1): 19030. <https://doi.org/10.1038/s41598-023-45866-x>.
- Leišytė, Liudvika, Jay R. Dee, and Barend J. R. van der Meulen, eds. 2023. *Research Handbook on the Transformation of Higher Education*. Cheltenham: Edward Elgar.



- Lerch, Julia C., David John Frank, and Evan Schofer. 2024. "The Social Foundations of Academic Freedom: Heterogeneous Institutions in World Society, 1960 to 2022." *American Sociological Review* 89 (1): 88–125. <https://doi.org/10.1177/00031224231214000>.
- Lohse, Anna P. 2024. "An Age of Disruption for European Higher Education." In *Higher Education in an Age of Disruption: Comparing European Internationalisation Policies*, 69–85. Cham: Palgrave Macmillan. [https://doi.org/10.1007/978-3-031-57912-7\\_3](https://doi.org/10.1007/978-3-031-57912-7_3)
- MacKenzie, Michael K. 2016. "Institutional Design and Sources of Short-Termism." In *Institutions for Future Generations*, edited by Iñigo González-Ricoy and Axel Gosseries, 24–46. Oxford: Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780198746959.003.0002>
- Marginson, Simon. 2022. "What Is Global Higher Education?" *Oxford Review of Education* 48 (4): 492–517. <https://doi.org/10.1080/03054985.2022.2061438>.
- Marginson, Simon, and Marijk Van der Wende. 2007. *Globalisation and Higher Education*. Education Working Paper No. 8, OECD. [https://www.oecd-ilibrary.org/education/globalisation-and-higher-education\\_173831738240](https://www.oecd-ilibrary.org/education/globalisation-and-higher-education_173831738240).
- Marques, M., J. Rohde-Liebenau, and L. Graf. 2025. "Connecting Internal and External Dynamics in European Intersectoral Policy Coordination – the Case of Education and Employment." *Journal of European Integration* 47 (3): 423–443. <https://doi.org/10.1080/07036337.2024.2379425>.
- Marques, Marcelo. 2024. "Governing European Educational Research through Ideas? Incremental Ideational Change in the European Union's Framework Programme (1994–2020)." *European Journal of Education* 59 (1): e12579. <https://doi.org/10.1111/ejed.12579>.
- Marques, Marcelo, and Lukas Graf. 2024. "Pushing Boundaries: The European Universities Initiative as a Case of Transnational Institution Building." *Minerva* 62:93–112. <https://doi.org/10.1007/s11024-023-09516-w>.
- Marques, Marcelo, Lukas Graf, and Judith Rohde-Liebenau. 2023. "Forming a Supranational Boundary-Spanning Policy Regime – European Intersectoral Coordination in Education and Employment." *Journal of Education and Work* 36 (7-8): 524–541. <https://doi.org/10.1080/13639080.2023.2275780>.
- Marques, Marcelo, Bea Treena Macasaet, Justin J. W. Powell, Jennifer Dusdal, and David P. Baker. 2025. "Scientizing the World: On Mechanisms and Outcomes of the Institutionalization of Science." *Science and Public Policy* 52 (4): 491–502. <https://doi.org/10.1093/scipol/scae095>.
- Marques, Marcelo, and Justin J. W. Powell. 2020. "Ratings, Rankings, Research Evaluation: How Do Schools of Education Behave Strategically within Stratified UK Higher Education?" *Higher Education* 79 (5): 829–846. <https://doi.org/10.1007/s10734-019-00440-1>.
- Marques, Marcelo, Justin J. W. Powell, Mike Zapp, and Gert Biesta. 2017. "How Does Research Evaluation Impact Educational Research? Exploring Intended and Unintended Consequences of Research Assessment in the United Kingdom, 1986–2014." *European Educational Research Journal* 16 (6): 820–842. <https://doi.org/10.1177/1474904117730159>.
- Meyer, Heinz-Dieter, and Justin J. W. Powell. 2020. "New Institutionalism in Higher Education." In *The SAGE Encyclopedia of Higher Education*, vol. 4, edited by Miriam E. David and Marilyn J. Amey, 1084–1089. London: SAGE. <https://doi.org/10.4135/9781529714395.n405>
- Meyer, John W., Francisco O. Ramirez, David John Frank, and Evan Schofer. 2007. "Higher Education as an Institution." In *Sociology of Higher Education: Contributions and Their Contexts*, edited by Patricia J. Gumpert, 187–221. Baltimore, MD: Johns Hopkins University Press.
- Moher, David, Florian Naudet, Ioana A. Cristea, Frank Miedema, John P. A. Ioannidis, and Steven N. Goodman. 2018. "Assessing Scientists for Hiring, Promotion, and Tenure." *PLoS Biology* 16 (3): e2004089. <https://doi.org/10.1371/journal.pbio.2004089>.
- Moser, Vera, Nicolas Engel, Justin J. W. Powell, Sophie Abend, and Lena Wolf. 2025, *in press*. "Institutionalizing Inclusion in Higher Education: A Comparative Study of Universities in Germany and Luxembourg." *Alter: European Journal of Disability Research* 19 (4): 31–51.
- Nair, Sreeja, and Michael Howlett. 2017. "Policy Myopia as a Source of Policy Failure: Adaptation and Policy Learning Under Deep Uncertainty." *Policy & Politics* 45 (1): 103–118. <https://doi.org/10.1332/030557316X14788776017743>.

- Norton, Andrew. 2024. "International Students: A Government Changes Its Mind." *ANU Migration Hub Insights*, No. 24/3. Canberra: Australian National University.
- OECD. 2023. *Opportunities, Guidelines and Guardrails for Effective and Equitable Use of AI in Education*. Paris: OECD Publishing.
- OECD. 2024. *The State of Academic Careers in OECD Countries: An Evidence Review*. OECD Education Policy Perspectives, No. 91. Paris: OECD Publishing. <https://doi.org/10.1787/ea9d3108-en>
- OECD. 2025. *Strategic Foresight*. Paris: OECD Publishing.
- Office of the United Nations High Commissioner for Human Rights. 2024. "States Must Adhere to Obligations Under Genocide Convention to Prevent Further Loss of Life in Gaza, Says Special Rapporteur Francesca Albanese." Press release, March 26. <https://www.ohchr.org/en/press-releases/2024/03/states-must-adhere-obligations-under-genocide-convention-prevent-further>.
- Oleksiyenko, Anatoly V., and Liz Jackson. 2021. "Freedom of Speech, Freedom to Teach, Freedom to Learn: The Crisis of Higher Education in the Post-Truth Era." *Educational Philosophy and Theory* 53 (11): 1057–1062. <https://doi.org/10.1080/00131857.2020.1773800>.
- Papatsiba, Vassiliki, and Simon Marginson. 2025. *Brexit, EU Students and UK Higher Education: Broken Bridges*. London: Bloomsbury.
- Pollitt, Christopher, and Geert Bouckaert. 2004. *Public Management Reform: A Comparative Analysis*. 2nd ed. Oxford: Oxford University Press.
- Pollitt, Christopher, and Geert Bouckaert. 2017. *Public Management Reform: A Comparative Analysis – Into the Age of Austerity*. 4th ed. New York: Oxford University Press.
- Powell, Justin J. W., David P. Baker, and Frank Fernandez, eds. 2017. *The Century of Science: The Global Triumph of the Research University*. Emerald: Bingley.
- Powell, Justin J. W. 2020. "Comparative Education in an Age of Competition and Collaboration." *Comparative Education* 56 (1): 57–78. <https://doi.org/10.1080/03050068.2019.1701248>.
- Pöysä-Tarhonen, Johanna. 2025. "Geographies of Collaboration in Hybrid Learning Spaces in the Postdigital Era: Towards Sustainable Futures for Higher Education Learning." *European Journal of Higher Education*: 1–16. <https://doi.org/10.1080/21568235.2025.2492740>.
- Price, Derek J. de Solla. 1963. *Little Science, Big Science*. New York: Columbia University Press.
- Qian, Yufeng. 2025. "Pedagogical Applications of Generative AI in Higher Education: A Systematic Review of the Field." *TechTrends* 69:1105–1120. <https://doi.org/10.1007/s11528-025-01100-1>.
- Reichert, Philipp N. 2025. "After the Cap: The Reality Check for Canada's International Education Sector." *The PIE News*, October 3.
- Reiter, Renate, and Tanja Klenk. 2019. "The Manifold Meanings of 'Post-New Public Management' – A Systematic Literature Review." *International Review of Administrative Sciences* 85 (1): 11–27. <https://doi.org/10.1177/0020852318759736>.
- Rónay, Zoltán, Marcelo Marques, Daniela Craciun, and Gergely Kováts. 2026. "Understanding Academic Freedom – Cross-Disciplinary and Cross-Regional Perspectives." *International Journal of Educational Research*.
- Sandford, Richard. 2019. "Thinking with Heritage: Past and Present in Lived Futures." *Futures* 111: 71–80. <https://doi.org/10.1016/j.futures.2019.06.004>.
- Schmidt, Vivien A. 2008. "Discursive Institutionalism: The Explanatory Power of Ideas and Discourse." *Annual Review of Political Science* 11: 303–326. <https://doi.org/10.1146/annurev.polisci.11.060606.135342>.
- Schofer, Evan, Julia C. Lerch, and John W. Meyer. 2022. "Illiberal Reactions to Higher Education." *Minerva* 60 (4): 509–534. <https://doi.org/10.1007/s11024-022-09472-x>.
- Scholars at Risk. 2025. *Free to Think: Report of the Scholars at Risk Academic Freedom Monitoring Project*. New York: Scholars at Risk Network. <https://www.scholarsatrisk.org/resources/free-to-think-2025>.
- Scott, W. Richard. 2014. *Institutions and Organizations*. 4th ed. London: Sage.
- Sewchurran, Kosheek, Johan Dekker, and Jennifer McDonogh. 2019. "Experiences of Embedding Long-Term Thinking in an Environment of Short-Termism and Sub-Par Business

- Performance: Investing in Intangibles for Sustainable Growth.” *Journal of Business Ethics* 157:997–1041. <https://doi.org/10.1007/s10551-018-3959-2>.
- Steiner-Khamsi, Gita. 2025. *Time in Education Policy Transfer: The Seven Temporalities of Global School Reform*. Basingstoke: Palgrave Macmillan. <https://doi.org/10.1007/978-3-031-82524-8>
- Suárez, David F., and Patricia Bromley. 2016. “Institutional Theories and Levels of Analysis: History, Diffusion, and Translation.” In *World Culture Re-Contextualised*, edited by Jürgen Schriewer, 139–159. London: Routledge.
- Sunter, Clem, and Mitch Ilbury. 2022. *Thinking the Future: New Perspectives from the Shoulders of Giants*. London: Penguin Books.
- Tamtik, Merli, and Alina J. Felder-Stindt. 2024. “How Geopolitics Shapes Higher Education Internationalization: Institutional Responses to the Russian Invasion of Ukraine.” *Journal of Comparative & International Higher Education* 16 (3): 163–177. <https://doi.org/10.32674/jcihe.v16i3.6712>.
- Thornton, Patricia H., and William C. Ocasio. 2008. “Institutional Logics.” In *The SAGE Handbook of Organizational Institutionalism*, edited by Royston Greenwood, Christine Oliver, Roy Suddaby, and Kerstin Sahlin, 99–129. London: Sage.
- UNESCO. 2021. *Reimagining Our Futures Together: A New Social Contract for Education*. Paris: UNESCO.
- Van Assche, Kristof, Gert Verschraegen, and Monica Gruezmacher. 2021. “Strategy for Collectives and Common Goods.” *Futures* 128:102716. <https://doi.org/10.1016/j.futures.2021.102716>.
- Vettori, Oliver, and Johanna Warm. 2025. “Playing with Perpetuity? How Universities Are Strategising Time.” *European Journal of Higher Education*: 1–16. <https://doi.org/10.1080/21568235.2025.2499810>.
- Wakeling, Paul, Alice Dias Lopes, and José Luis Mateos-González. 2025. “Brexit as Revelatory Policy Shock: What Can We Learn about International Student Mobility from Changes in EU Student Mobility to the UK after Brexit?” *European Journal of Higher Education*: 1–22. <https://doi.org/10.1080/21568235.2025.2512745>.
- Wang, Stephanie L., Yadong Luo, Vladislav Maksimov, Jinyun Sun, and Nikhil Celly. 2019. “Achieving Temporal Ambidexterity in New Ventures.” *Journal of Management Studies* 56 (4): 788–822. <https://doi.org/10.1111/joms.12431>.
- White, Jonathan. 2024. “Technocratic Myopia: On the Pitfalls of Depoliticising the Future.” *European Journal of Social Theory* 27 (2): 260–278. <https://doi.org/10.1177/13684310241226613>.
- Wilkesmann, Uwe, and Sabine Lauer. 2025. “Determinants of Third-Party Funding Applications in German Academia.” *European Journal of Higher Education*: 1–21. <https://doi.org/10.1080/21568235.2025.2501158>.
- Witze, Alexandra. 2025. “75% of US Scientists Who Answered Nature Poll Consider Leaving.” *Nature*. <https://www.nature.com/articles/d41586-025-00938-y>
- Zapp, Mike, Marcelo Marques, and Justin J. W. Powell. 2021. “Blurring the Boundaries. University Actorhood and Institutional Change in Global Higher Education.” *Comparative Education* 57 (4): 538–559. <https://doi.org/10.1080/03050068.2021.1967591>.
- Zapp, Mike, Marcelo Marques, and Justin J. W. Powell. 2018. *European Education Research (Re)Constructed: Institutional Change in Germany, the United Kingdom, Norway, and the European Union*. Oxford: Symposium Books.
- Zietsma, Charlene, and T. B. Lawrence. 2010. “Institutional Work in the Transformation of an Organizational Field: The Interplay of Boundary Work and Practice Work.” *Administrative Science Quarterly* 55 (2): 189–221. <https://doi.org/10.2189/asqu.2010.55.2.189>.