Worlds of Rankings Research

Jelena Brankovic¹

forthcoming in

The Routledge International Handbook of Valuation and Society edited by Anne K. Krüger, Thorsten Peetz and Hilmar Schäfer

Abstract

The chapter discusses *rankings* as a device of evaluation, their historical origins and contemporary presence. It draws attention to the growing scholarly interest rankings have attracted in recent years, which has been especially geared towards those rankings that have come to wield some or even significant influence in their respective societal domains. By mapping the loose 'genre' of rankings scholarship across social sciences, the chapter (a) draws attention to its relatively siloed character, (b) identifies dominant conceptualizations of rankings across various research strands, and (c) questions the often-assumed distinction between rankings research and ranking practice. As a way of advancing our understanding of rankings as a social phenomenon and how it affects societal change, the chapter calls for exploring research strategies that facilitate exchange between diffuse 'worlds of rankings research'.

Keywords: rankings, comparison, quantification, evaluation, social science research

Introduction

Among the many different (e)valuation devices, rankings are frequently recognized as a particularly ubiquitous one. The diffusion of rankings over recent decades has been so widespread that, nowadays, they are a common occurrence in a wide range of domains, including politics, education, business, culture, and entertainment. Rankings of nation-states, universities, and businesses, alongside the league tables in virtually every sports discipline, are among the best-known types. Rankings are abundant, often taken for granted, and for many observers largely

¹ Faculty of Sociology, Bielefeld University, jelena.brankovic@uni-bielefeld.de

uncontroversial. At the same time, their diffusion has had a profound effect on how the world is observed, represented, and 'known', but also on how actors and action are evaluated and judged.

This chapter discusses rankings as a device of evaluation and examines the diverse research landscape that emerged around them. It starts by elaborating on the kind of device rankings are, their historical origins, and how they came to wield significant influence in the contemporary world. It then proceeds with an overview of scholarly approaches to the phenomenon, thus highlighting its multifaceted and cross-cutting character. In this context, dominant approaches and avenues of theoretical and empirical contributions are identified. The chapter also suggests comparative research as a potentially productive strategy, both for further exploration of rankings and also for simultaneously engaging different strands of scholarship.

Rankings and the emergence of the rankings research 'genre'

What are rankings? Sociologically speaking, rankings are *quantified zero-sum comparisons of performances published by a third party* (Werron and Ringel 2017). Unlike other kinds of comparisons, such as ratings or benchmarks, rankings are by definition zero-sum. This, in plain terms, translates into a strict hierarchy of performers, whereby only one performer can be top-ranked, followed by the second-ranked, and so on. Because comparisons of performances are visualized as zero-sum tables, in a ranking, two performers are in principle never equal. This understanding of performance is different from the one we find in other evaluation devices based on commensuration (cf. Espeland and Stevens 1998), although researchers are rarely interested in the respective conceptual distinctions. Modern rankings are, in effect, more than just hierarchical tables based on calculated scores; they are *repeatedly published* zero-sum tables, which opens up the possibility of observing change in individual performances *over time* (Ringel and Werron 2021).

Historically, the first zero-sum quantified evaluations were published in the field of arts as early as in the first half of the eighteenth century (Spoerhase 2018). They were produced by notable art critics, who would compare painters, poets, and composers. However, these lists would be typically published only once and were, in a number of ways, different from the rankings we can observe today (see Brankovic, Ringel, and Werron 2021 for an elaboration). The repeatedly published zero-sum comparisons of performances most likely first emerged in the nineteenth century in sports and were in part enabled by the rise and growth of the sports press (Minnetian and Werron 2021; Ringel and Werron 2020). The practice would later be adopted in other domains, notably in science and higher education, where the press likewise played a crucial role in serializing rankings and bringing them to the attention of broader audiences (Wilbers and Brankovic 2021). Towards the end of the twentieth century, international organizations started to take an interest in rankings as a way of systematically comparing performances of nation-states on a range of internationally relevant policy issues, including development, human rights, and corruption. The advent of the internet and

the developments in digital technologies post-2000 facilitated further diffusion and advancement of the practice, both within and across specific social domains.

Seen through the lens of the world society/polity theory, the growing proliferation and salience of rankings is a clear indication of accelerated cultural rationalization of the global moral order (Meyer, Boli, and Thomas 1987). Together with other practices of commensuration, rankings herewith feature as the instrumental technologies of this cultural rationalization. The claim to objectivity and universality, which modern rankings typically incorporate, helps them satisfy a moral demand for impartiality and fairness and lends them authority in various spheres of social life (Porter 1996). The legitimacy of rankings as 'impartial arbiters' is ultimately rooted in a belief that they are instrumental in the collective pursuit of 'goodness' (virtue) and 'excellence' (virtuosity) in performance (Boli 2006)—which facilitates their diffusion and institutionalization within and across contexts. However, the fact that rankings, as a specific mode of comparison, 'travel' easily across contexts does not directly translate into an 'even' uptake and impact. Given that, as mentioned earlier, the effect of rankings is contingent upon their repeated publication, the extent of change induced by rankings is expected to depend also on the ability of its producers to draw continuous public attention to them (Brankovic 2021; 2022; Ringel, Brankovic, and Werron 2020).

This growing influence of rankings has not escaped the attention of scholars. Because rankings have come to play an increasingly more important role in society, scholars have grappled with them from a range of approaches. Research on rankings can today be found in practically all corners of social sciences, including anthropology, economics, sociology, political science, history, as well as in interdisciplinary fields such as management, higher education, and science studies. This varied and, quite certainly, expanding body of work is probably better described as a loose 'genre' than as a unified intellectual project oriented around shared problems and questions.¹ The scholarly communities contributing to this literature are also characterized by varying epistemic, pragmatic, political, and other concerns that motivate and guide their research. The scholarship on rankings is, furthermore, also 'uneven', whereby some (kinds of) rankings are studied extensively and others very little in comparison. Notably, rankings that are 'popular', and which attract the attention of both those they rank and their stakeholders, tend to also attract the research interest and critical scrutiny of scholars.

Rankings often become an object of interest because they are seen as being related to other kinds of phenomena, for example, competition (e.g., Werron 2015), status (e.g., Bowers and Prato 2019), reputation (e.g., Corley and Gioia 2000), or valuation (e.g., Buckermann 2021). Rankings then emerge as a phenomenon the study of which can help us understand such broader social processes and practices better. These considerations may appear trivial, but they are nevertheless an important precondition for how our understanding of what rankings are takes shape. However, such a variety of potential interpretations possibly leads to divergent views on why rankings matter, how they matter, or when they matter for the individual observer. But also: why they don't matter, how they

don't matter, or when they don't matter. Arguably, because scholarship to date has tended to focus on those rankings that are believed to have had some or considerable impact, we know little about the cases in which the publication of a ranking has not led to some or even significant change in behavior, status anxiety, and resource flows, or cases in which a ranking was published only once, or it had to be discontinued after a certain period.²

Upon closer observation, the research landscape reflects the rise of rankings in specific social spheres: certain rankings come into the researchers' focus only when they have gained salience in a domain, which then leads to rankings being of interest to scholars working on those particular social domains. For example, OECD's PISA ranking of educational systems has been extensively studied by researchers of education and various aspects thereof (e.g., Grek 2009). A similar observation can be made about higher education rankings (e.g., Hazelkorn 2015), rankings related to human rights (e.g., Merry 2016), and corporate rankings (e.g., Fombrun 2007). The research is siloed to such an extent that the multiple 'worlds of rankings' (Ringel et al. 2021b) effectively become the multiple *worlds of rankings research*—with few bridges that connect them.

Worlds of rankings research

To understand what 'kinds' of rankings there are, whom they affect and how, and not least of all how they interrelate with other social phenomena, in this section I am going to map the loose 'genre' of rankings research that has emerged partly in response to the proliferation of rankings.³ The aim of the mapping exercise is twofold: (a) to offer a more systematic understanding of how scholars make sense of rankings and (b) to highlight some of the key insights from research. I organize the section around the following three questions:

- i. What kinds of rankings are researchers interested in?
- ii. How do researchers conceptualize rankings?
- iii. What perspectives are entertained by scholars doing research on rankings?

Kinds of rankings

By and large, research on rankings tends to be limited to a single (kind of) ranked or evaluated 'object' or entity, which has led to the emergence of recognized strands in scholarship on, for example, 'university rankings', 'corporate rankings', and 'country rankings'. In this sense, scholars are overwhelmingly interested in rankings of organizations and nation-states, and in particular the effects rankings have on their behavior, legitimacy or reputation (Ringel et al. 2021a).⁴

Across social sciences, rankings of *organizations* tend to attract the most attention. Studies on organizational rankings are published in the widely read disciplinary and interdisciplinary journals, such as those in sociology, organization and management studies, and higher education studies (see Rindova et al. 2018 for a comprehensive review). Rankings of higher education institutions (universities and business schools, in particular) and companies feature prominently in this

literature. Research on rankings of businesses typically focuses on the way rankings affect organizational reputation (Slager 2015). Higher education research is somewhat more varied and ranges from studying rankings to measure the quality of institutions (Dill and Soo 2005) right through to more critical takes that see rankings as a product of neoliberalism and managerialist policies (Lynch 2014), which reproduces and aggravates inequalities (Chu 2021). The interest in organizational ranking is, of course, not limited to these aspects, types of organizations, or to these academic fields.

In comparison to organizational rankings, comparisons of *nation-states* constitute a somewhat more focused body of work. This research agenda is primarily, but not exclusively, pursued by scholars in political science and particularly in international relations and related areas (see Beaumont and Towns 2021 for a recent review of this literature). Evaluation by means of rankings is seen here as an instrument in global governance and national policy. Research typically focuses on specific rankings and the organizations producing them, and in particular on their effects on transnational and national governance and policy (Cooley and Snyder 2015; Kelley and Simmons of the frequently studied 2020). Some most examples include Transparency International's Corruption Perception Index (Andersson and Heywood 2009), World Bank's (for the moment discontinued) Ease of Doing Business index (Doshi, Kelley, and Simmons 2020), UNDP's Human Development Index (Davis, Kingsbury, and Merry 2012), and the aforementioned OECD's PISA study (K. Martens and Niemann 2013).

Research cutting across these two kinds of rankings is (still) scarce, yet important to consider, not least because it opens up doors for further questioning and theorizing of what rankings *are* as a phenomenon, beyond specific domains and beyond the present moment. Notably, to date, scholars have compared university and hospital rankings (de Rijcke et al. 2016), rankings in figure skating and music competitions (Lom 2021), arts, science, and sports rankings (Ringel and Werron 2020), or rankings throughout history (Hammarfelt, de Rijcke, and Wouters 2017). This empirical work has been productive not only in terms of insights gained, but also for generating conceptual vocabulary that facilitates the exchange between diffuse lines of scholarship (see Brankovic, Ringel, and Werron 2021 for further arguments on this point). Finally, the question of how, exactly, the rankings of individuals, organizations, and nation-states are—in and of themselves—*similar* as well as *different*, is worthwhile exploring.

Conceptualizing rankings

The question of conceptualizing rankings is hardly separable from the variety of terms used to refer to what could qualify as more or less the same phenomenon. For example, 'country/global performance indicators' ('CPIs' or 'GPIs', respectively), usually used by international relations scholars, highlights a function in global governance: to indicate countries' respective performances. 'Ranking systems', used sometimes in higher education studies, points to the plurality of rankings in the sector, or perhaps their historical origins (Wilbers and Brankovic 2021). The sports-inspired 'league tables' are also sometimes used (Li, Shankar, and Tang 2011), underlining the competition-inducing property of rankings (Brankovic, Ringel, and Werron 2018). Statisticians often speak of rankings (and not only of rankings) as 'composite indicators', stressing the complexity of calculative operations behind scores (Saisana, D'Hombres, and Saltelli 2011). Sometimes, 'ratings' are used to refer (also) to 'rankings' without much consideration about possible distinctions, presumably because these are not considered important in the research in question (Esposito and Stark 2019). These and other possible terms are indicative of different conceptual underpinnings that may direct researchers' focus. While we are at it, referring to rankings as a 'device', as this chapter does, is not without the proverbial theoretical 'baggage' either.

A great deal of literature on rankings sees them as a phenomenon that is defined primarily by its quantification-related properties (Mennicken and Espeland 2019). The literature on the history and sociology of quantification links the increasing prominence of rankings with 'trust in numbers' (Porter 1996), 'metric society' (Mau 2019), and the growing authority of calculative technologies in general (Diaz-Bone and Didier 2016). A tradition connected to this one is found in the literature on accounting and auditing, which offers a link between rankings and mechanisms of accountability (Mehrpouya and Samiolo 2016). The ubiquity of rankings is, therefore, also a product of the advancing 'audit society' (Power 1999). The literature focusing specifically on evaluation sees rankings (and commensuration and quantification more generally) as inseparable from modern practices of valuation (Krüger and Reinhart 2017) and thus as a part of the continuously expanding transsituational and transsectoral 'valuation constellations' (Meier, Peetz, and Waibel 2016). As a device of evaluation, rankings play a role in the (re)production and stabilization of regimes of worth within and across contexts (Mohrman, Ma, and Baker 2008), but also in their fragmentation (Brandtner 2017).

Some of the most influential works on rankings have, in fact, emerged from their framing as (public) 'measures'. One concept that stands out in this respect is 'reactivity', introduced into the research on rankings by Espeland and Sauder (2007). The concept denotes the idea that 'people change their behavior in reaction to being evaluated, observed, or measured' (Espeland and Sauder 2007, 1) and was developed based on the authors' study of the rankings of law schools in the United States. In the years after the study was published, 'reactivity' attained the status of a dominant approach in understanding how rankings trigger response in various actors—be it nation-states, organizations, or individuals. This may be due to the considerable interest scholars had in understanding how rankings came to effect change in behavior. While this and other works in the tradition of the sociology of quantification have certainly gifted us with critical insights — and not least with a way of theoretically and conceptually connecting different kinds of rankings — quantification is hardly the only dimension identified as defining rankings as a device of evaluation.

Across different strands of literature, rankings are an empirical manifestation of broader social trends and processes. Researchers interested in globalization may see rankings as drivers or

otherwise inseparable from globalization (P. Martens et al. 2015), while research on marketization would regard them as diffusers of 'market logic' in a specific sector (Locke 2014). As these and similar processes are not exclusive to specific domains, the research interest thereof may cut across empirical foci of nation-state and organizational rankings, which tend to form distinct clusters in the rankings research 'genre'. For instance, rankings have been studied as a driver of mediatization both in the case of university rankings (Stack 2016) and in the case of PISA ranking of countries (Rawolle and Lingard 2014), whereby mediatization broadly refers to processes of change resulting from the uptake of various media technologies. In these and numerous other examples, rankings are often observed and interpreted against the backdrop of and in connection with macro-societal processes.

Perspectives on rankings

Rankings are studied with different aims in mind. Some scholars study them because of their impact on society. Or because they find them interesting, intriguing, and in some way illuminating. Others may study them because they find rankings flawed and want to criticize them. Or because they see them as an (potentially) effective tool of governance. While the loose genre of rankings research accommodates all of these and beyond, it is often difficult to discern where each work stands and how strands of literature fit or do not fit together. One way of making sense of this is by questioning the researcher's position with respect to the phenomenon. Here, Desrosières' distinction between 'internalist' and 'externalist' perspectives on the history and sociology of the sciences is a useful approach (1998, 5).

The *internalist perspective* is assumed primarily by scholars interested in rankings as a method of comparing, measuring, and evaluating actors and non-actor entities. This approach is pursued by specialists in statistics and fields leaning heavily on statistics, such as econometrics and scientometrics (Saisana and Saltelli 2011). Because they see ranking as, in principle, a legitimate scientific method or a policy instrument, scholars researching rankings from the internalist perspective are usually primarily interested in their methodological and instrumental aspects. Accordingly, rankings are herewith evaluated for their conceptual validity, accuracy, data quality and fitness for purpose, and so on (Irons, Buckley, and Paulden 2014). Sometimes, the authors of these works are themselves specialists having some experience in the production of rankings (e.g., Becker et al. 2017). These works tend to be more realist, evaluative, and typically prescriptive when it comes to the methodology used in different rankings.

In the *externalist perspective*, in contrast, rankings are observed as a phenomenon, and their methodological aspects are, at best, only of interest to the extent that they illuminate the regime of worth the ranking in question (re)produces. Scholars studying rankings from this perspective are primarily interested in the social and material conditions within which rankings are produced, the dynamics of their institutionalization, the discourse on rankings in general, their effects on the institutional environment, various actors, and the relations thereof. The externalist perspective is

more at home in sociology, anthropology, political science, history, and other fields leaning on these disciplines (see the following literature reviews for an overview of (mostly) externalist works – Beaumont and Towns 2021; Rindova et al. 2018; Ringel et al. 2021b). The externalist approach can, however, also lead to prescriptive and critically oriented work, but instead of being directed to the method, the prescription and/or critique would be addressing other actors, such as national and international policy makers, the producers of rankings, or social structure more generally, but also rankings as such.

The boundary between these two perspectives is often not clear-cut. In fact, and especially in the specialized fields with a close proximity to the worlds of policy and practice (e.g., higher education, science, public policy, management), research tends to combine elements of both perspectives, while being both descriptive and prescriptive (see, for example, O'Connell 2013 for a discussion on research discourses on university rankings). From a pragmatic point of view, this is understandable, given that rankings are a method of evaluation based on, or at least aspiring to, a scientific style of reasoning (Hacking 1994). Yet, this may create difficulties for social scientists to exercise reflexivity when it comes to rankings, but also other devices rooted in quantification. The ambiguity with respect to the perspective, nevertheless, raises questions as to whether research aiming at improving rankings is perhaps closer to ranking practice than it is to rankings scholarship. One could argue that the attention scholars give to some rankings, and especially the scholarly contribution to the advancement of the practice of ranking, is part of the answer to the question of why (some) rankings have come to be very influential.

Conclusion

This chapter has discussed rankings as a phenomenon, their historical origins, and how they came to wield significant influence in contemporary society. We could say, with some confidence, that the dramatic proliferation of all kinds of rankings over the past decades has helped spread the imaginary of the modern world as a rationalized competitive order, whose actors have become increasingly more attuned with the idea that they are being continuously observed and their performances quantified, compared, and judged. Yet, this diagnosis may do justice more to some spheres of society than others, or to some (kinds of) rankings more than others.

In examining the 'genre' of rankings scholarship, the chapter identifies two relatively loose 'clusters' formed around kinds of rankings, namely, rankings of organizations and rankings of nation-states. Yet, while researchers are interested in different kinds of rankings, they are rarely interested in more than one kind at a time. Moreover, the terminology used to refer to rankings is also diverse, which can also be noted for conceptual approaches, as well as for a range of macro-societal trends and processes that have been (sometimes causally) connected with the growing importance of rankings. Finally, depending roughly on disciplinary orientation or the researcher's position, rankings are recognized as an object of research, an object of action, or both at the same

time. The often unclear boundary between the two perspectives suggests that the distinction between rankings scholarship and ranking practice is not to be taken for granted.

Although diversely oriented around rankings, scholars tend to be interested in those (kinds of) rankings that have already attracted a certain degree of attention and have in some ways become important to the main actors in specific societal spheres. This may have led to the impression that rankings — in and of themselves —matter or are expected to matter always and everywhere. However, we should be cautious when making such generalizations. The 'societal change' produced by rankings cannot, after all, be assessed without a more systematic empirical knowledge. Comparative research strategies are one way of taking this conversation forward. In addition to being potentially productive for advancing our understanding of rankings, comparative approaches hold the potential for advancing exchange between diffuse *worlds of rankings research*.

Reference list

- Andersson, Staffan, and Paul M. Heywood. 2009. "The Politics of Perception: Use and Abuse of Transparency International's Approach to Measuring Corruption." *Political Studies* 57 (4): 746–67. <u>https://doi.org/10.1111/j.1467-9248.2008.00758.x</u>.
- Beaumont, Paul, and Ann E Towns. 2021. "The Rankings Game: A Relational Approach to Country Performance Indicators." *International Studies Review* 23 (4): 1467–94. <u>https://doi.org/10.1093/isr/viab017</u>.
- Becker, William, Michaela Saisana, Paolo Paruolo, and Ine Vandecasteele. 2017. "Weights and Importance in Composite Indicators: Closing the Gap." *Ecological Indicators* 80 (September): 12–22. https://doi.org/10.1016/j.ecolind.2017.03.056.
- Berman, Elizabeth Popp, and Daniel Hirschman. 2018. "The Sociology of Quantification: Where Are We Now?" *Contemporary Sociology* 47 (3): 257–66. https://doi.org/10.1177/0094306118767649.
- Boli, John. 2006. "The Rationalization of Virtue and Virtuosity in World Society." In *Transnational Governance: Institutional Dynamics of Regulation*, edited by Marie-Laure Djelic and Kerstin Sahlin-Andersson, 95–118. Cambridge: Cambridge University Press.
- Bowers, Anne, and Matteo Prato. 2019. "The Role of Third-Party Rankings in Status Dynamics: How Does the Stability of Rankings Induce Status Changes?" *Organization Science* 30 (6): 1125–1393. <u>https://doi.org/10.1287/orsc.2019.1316</u>.
- Brandtner, Christof. 2017. "Putting the World in Orders: Plurality in Organizational Evaluation." Sociological Theory 35 (3): 200–227. <u>https://doi.org/10.1177/0735275117726104</u>.
- Brankovic, Jelena. 2021. "'Measure of Shame': Media Career of the Global Slavery Index." In Worlds of Rankings, edited by Leopold Ringel, Wendy Espeland, Michael Sauder, and Tobias Werron, 103–25. Bingley: Emerald Publishing Limited. <u>https://doi.org/10.1108/S0733-558X20210000074030</u>.
- ———. 2022. "Why Rankings Appear Natural (But Aren't)." Business & Society 61 (4): 801–6. <u>https://doi.org/10.1177/00076503211015638</u>.
- Brankovic, Jelena, Leopold Ringel, and Tobias Werron. 2018. "How Rankings Produce Competition: The Case of Global University Rankings." *Zeitschrift für Soziologie* 47 (4): 270–88. <u>https://doi.org/10.1515/zfsoz-2018-0118</u>.

 —. 2021. "Theorizing University Rankings by Comparison: Systematic and Historical
 Analogies with Arts and Sports." In *Research Handbook on University Rankings: History, Methodology, Influence and Impact*, edited by Ellen Hazelkorn and Georgiana Mihut, 67–
 79. Cheltenham: Edward Elgar Publishing.
 https://doi.org/10.4337/9781788974981.00013.

Buckermann, Paul. 2021. "Ranking Art: Paradigmatic Worldviews in the Quantification and Evaluation of Contemporary Art." *Theory, Culture & Society* 38 (4): 89–109. https://doi.org/10.1177/0263276420972771.

- Chu, James. 2021. "Cameras of Merit or Engines of Inequality? College Ranking Systems and the Enrollment of Disadvantaged Students." *American Journal of Sociology* 126 (6): 1307–46. <u>https://doi.org/10.1086/714916</u>.
- Cooley, Alexander, and Jack Snyder. 2015. *Ranking the World: Grading States as a Tool of Global Governance*. Cambridge: Cambridge University Press.
- Corley, K., and D. Gioia. 2000. "The Rankings Game: Managing Business School Reputation." *Corporate Reputation Review* 3 (4): 319–33. <u>https://doi.org/10.1057/palgrave.crr.1540123</u>.
- Davis, Kevin E., Benedict Kingsbury, and Sally Engle Merry. 2012. "Indicators as a Technology of Global Governance." *Law & Society Review* 46 (1): 71–104. https://doi.org/10.1111/j.1540-5893.2012.00473.x.
- Desrosières, Alain. 1998. *The Politics of Large Numbers: A History of Statistical Reasoning*. Translated by Camille Naish. Cambridge, MA: Harvard University Press.
- Diaz-Bone, Rainer, and Emmanuel Didier. 2016. "The Sociology of Quantification Perspectives on an Emerging Field in the Social Sciences." *Historical Social Research* 41 (2): 7–26. <u>https://doi.org/10.12759/hsr.41.2016.2.7-26</u>.
- Dill, David D, and Maarja Soo. 2005. "Academic Quality, League Tables, and Public Policy: A Cross-National Analysis of University Ranking Systems." *Higher Education* 49 (4): 495– 533. <u>https://link.springer.com/article/10.1007/s10734-004-1746-8</u>
- Doshi, Rush, Judith G. Kelley, and Beth A. Simmons. 2020. "The Power of Ranking: The Ease of Doing Business Indicator and Global Regulatory Behavior." In *The Power of Global Performance Indicators*, edited by Beth A. Simmons and Judith G. Kelley, 25–60. Cambridge: Cambridge University Press. <u>https://doi.org/10.1017/9781108763493.003</u>.
- Espeland, Wendy Nelson, and Mitchell L. Stevens. 1998. "Commensuration as a Social Process." *Annual Review of Sociology* 24 (1): 313–43. <u>https://doi.org/10.1146/annurev.soc.24.1.313</u>.
- Espeland, Wendy Nelson, and Michael Sauder. 2007. "Rankings and Reactivity: How Public Measures Recreate Social Worlds." *American Journal of Sociology* 113 (1): 1–40. <u>https://www.journals.uchicago.edu/doi/10.1086/517897</u>
- Esposito, Elena, and David Stark. 2019. "What's Observed in a Rating? Rankings as Orientation in the Face of Uncertainty." *Theory, Culture & Society* 36 (4): 3–26. https://doi.org/10.1177/0263276419826276.
- Fombrun, Charles J. 2007. "List of Lists: A Compilation of International Corporate Reputation Ratings." *Corporate Reputation Review* 10 (2): 144–53. <u>https://doi.org/10.1057/palgrave.crr.1550047</u>.
- Grek, Sotiria. 2009. "Governing by Numbers: The PISA 'Effect' in Europe." *Journal of Education Policy* 24 (1): 23–37. <u>https://doi.org/10.1080/02680930802412669</u>.
- Hacking, Ian. 1994. "Styles of Scientific Thinking or Reasoning: A New Analytical Tool for Historians and Philosophers of the Sciences." In *Trends in the Historiography of Science*,

edited by Kostas Gavroglu, Jean Christianidis, and Efthymios Nicolaidis, 31–48. Dordrecht: Springer Netherlands. <u>https://doi.org/10.1007/978-94-017-3596-4_3</u>.

- Hammarfelt, Björn, Sarah de Rijcke, and Paul Wouters. 2017. "From Eminent Men to Excellent Universities: University Rankings as Calculative Devices." *Minerva* 55 (4): 391–411. <u>https://doi.org/10.1007/s11024-017-9329-x</u>.
- Hazelkorn, Ellen. 2015. Rankings and the Reshaping of Higher Education: The Battle for World-Class Excellence. Dordrecht: Springer. https://link.springer.com/book/10.1057/9780230306394.
- Irons, David J., Stephen Buckley, and Tim Paulden. 2014. "Developing an Improved Tennis Ranking System." *Journal of Quantitative Analysis in Sports* 10 (2): 109–18. <u>https://doi.org/10.1515/jqas-2013-0101</u>.
- Kelley, Judith G., and Beth A. Simmons. 2020. "Global Performance Indicators: Themes, Findings, and an Agenda for Future Research." In *The Power of Global Performance Indicators*, edited by Beth A. Simmons and Judith G. Kelley, 409–24. Cambridge: Cambridge University Press. <u>https://doi.org/10.1017/9781108763493.014</u>.
- Krüger, Anne K., and Martin Reinhart. 2017. "Theories of Valuation: Building Blocks for Conceptualizing Valuation between Practice and Structure." *Historical Social Research / Historische Sozialforschung* 42 (1): 263–85. https://www.ssoar.info/ssoar/handle/document/51176
- Li, Mei, Sriram Shankar, and Kam Ki Tang. 2011. "Why Does the USA Dominate University League Tables?" *Studies in Higher Education* 36 (8): 923–37. <u>https://doi.org/10.1080/03075079.2010.482981</u>.
- Locke, William. 2014. "The Intensification of Rankings Logic in an Increasingly Marketised Higher Education Environment." *European Journal of Education* 49 (1): 77–90. <u>https://doi.org/10.1111/ejed.12060</u>.
- Lom, Stacy E. 2016. "Changing Rules, Changing Practices: The Direct and Indirect Effects of Tight Coupling in Figure Skating." Organization Science 27 (1): 36–52. <u>https://doi.org/10.1287/orsc.2015.1018</u>.
- ———. 2021. "Formality vs. Flexibility: The Effects of Evaluation Practices on Judging and Performance." In *Worlds of Rankings*, edited by Leopold Ringel, Wendy Espeland, Michael Sauder, and Tobias Werron, 199–220. Bingley: Emerald Publishing Limited. <u>https://doi.org/10.1108/S0733-558X20210000074033</u>.
- Lynch, Kathleen. 2014. "New Managerialism, Neoliberalism and Ranking." *Ethics in Science and Environmental Politics* 13 (2): 141–53. <u>https://doi.org/10.3354/esep00137</u>.
- Macri, Joseph, and Dipendra Sinha. 2006. "Rankings Methodology for International Comparisons of Institutions and Individuals: An Application to Economics in Australia and New Zealand." *Journal of Economic Surveys* 20 (1): 111–56. https://doi.org/10.1111/j.0950-0804.2006.00277.x.
- Martens, Kerstin, and Dennis Niemann. 2013. "When Do Numbers Count? The Differential Impact of the PISA Rating and Ranking on Education Policy in Germany and the US." *German Politics* 22 (3): 314–32. <u>https://doi.org/10.1080/09644008.2013.794455</u>.
- Martens, Pim, Marco Caselli, Philippe De Lombaerde, Lukas Figge, and Jan Aart Scholte. 2015. "New Directions in Globalization Indices." *Globalizations* 12 (2): 217–28. <u>https://doi.org/10.1080/14747731.2014.944336</u>.
- Mau, Steffen. 2019. *The Metric Society: On the Quantification of the Social*. Translated by Sharon Howe. Medford, SA: Polity Press.

- Mehrpouya, Afshin, and Rita Samiolo. 2016. "Performance Measurement in Global Governance: Ranking and the Politics of Variability." *Accounting, Organizations and Society* 55 (November): 12–31. <u>https://doi.org/10.1016/j.aos.2016.09.001</u>.
- Meier, Frank, Thorsten Peetz, and Désirée Waibel. 2016. "Bewertungskonstellationen: Theoretische Überlegungen zur Soziologie der Bewertung." *Berliner Journal für Soziologie* 26 (3): 307–28. https://doi.org/10.1007/s11609-017-0325-7.
- Mennicken, Andrea, and Wendy Nelson Espeland. 2019. "What's New with Numbers? Sociological Approaches to the Study of Quantification." *Annual Review of Sociology* 45 (1): 223–45. <u>https://doi.org/10.1146/annurev-soc-073117-041343</u>.
- Merry, Sally Engle. 2016. The Seductions of Quantification: Measuring Human Rights, Gender Violence, and Sex Trafficking. Chicago, IL: University of Chicago Press.
- Meyer, John W., John Boli, and George M. Thomas. 1987. "Ontology and Rationalization in the Western Cultural Account." In *Institutional Structure: Constituting State, Society, and the Individual*, edited by George M. Thomas, John W. Meyer, Francisco O. Ramirez, and John Boli, 12–37. London: SAGE.
- Minnetian, Clelia, and Tobias Werron. 2021. "Redefining Achievement: The Emergence of Rankings in American Baseball." In *Worlds of Rankings*, edited by Leopold Ringel, Wendy Espeland, Michael Sauder, and Tobias Werron, 127–51. Bingley: Emerald Publishing Limited. <u>https://doi.org/10.1108/S0733-558X20210000074031</u>.
- Mohrman, Kathryn, Wanhua Ma, and David Baker. 2008. "The Research University in Transition: The Emerging Global Model." *Higher Education Policy* 21 (1): 5–27. https://doi.org/10.1057/palgrave.hep.8300175.
- O'Connell, Catherine. 2013. "Research Discourses Surrounding Global University Rankings. Exploring the Relationship with Policy and Practice Recommendations." *Higher Education* 65 (6): 709–23. https://link.springer.com/article/10.1007/s10734-012-9572-x
- Porter, Theodore M. 1996. Trust in Numbers: The Pursuit of Objectivity in Science and Public Life. Princeton, NJ: Princeton University Press.
- Power, Michael. 1999. *The Audit Society: Rituals of Verification*. Oxford: Oxford University Press.
- Rawolle, Shaun, and Bob Lingard. 2014. "Mediatization and Education: A Sociological Account." In *Mediatization of Communication*, edited by Knut Lundby, 595–616. Berlin: De Gruyter Mouton. <u>https://doi.org/10.1515/9783110272215.595</u>.
- Rijcke, Sarah de, Iris Wallenburg, Paul Wouters, and Roland Bal. 2016. "Comparing Comparisons: On Rankings and Accounting in Hospitals and Universities." In *Practising Comparison: Logics, Relations, Collaborations*, edited by Joe Deville, Michael Guggenheim, and Zuzana Hrdličková, 251–80. Manchester: Mattering Press.
- Rindova, Violina P., Luis L. Martins, Santosh B. Srinivas, and David Chandler. 2018. "The Good, the Bad, and the Ugly of Organizational Rankings: A Multidisciplinary Review of the Literature and Directions for Future Research." *Journal of Management* 44 (6): 2175-2208. <u>https://doi.org/10.1177/0149206317741962</u>.
- Ringel, Leopold, Jelena Brankovic, and Tobias Werron. 2020. "The Organizational Engine of Rankings: Connecting "New" and "Old" Institutionalism." *Politics and Governance* 8 (2): 36–47. <u>https://doi.org/10.17645/pag.v8i2.2576</u>.
- Ringel, Leopold, Wendy Nelson Espeland, Michael Sauder, and Tobias Werron, eds. 2021a. *Worlds of Rankings*. Vol. 74. Research in the Sociology of Organizations. Bingley: Emerald Publishing Limited.

- Ringel, Leopold, Wendy Espeland, Michael Sauder, and Tobias Werron. 2021b. "Worlds of Rankings." In *Worlds of Rankings*, edited by Leopold Ringel, Wendy Espeland, Michael Sauder, and Tobias Werron, 1–23. Bingley: Emerald Publishing Limited. <u>https://doi.org/10.1108/S0733-558X20210000074026</u>.
- Ringel, Leopold, and Tobias Werron. 2020. "Where Do Rankings Come From? A Historical-Sociological Perspective on the History of Modern Rankings." In *Practices of Comparing: Towards a New Understanding of a Fundamental Human Practice*, edited by Angelika Epple, Walter Erhart, and Johannes Grave, 137–70. Bielefeld: Bielefeld University Press.
- ———. 2021. "Serielle Vergleiche: Zum Unterschied, den Wiederholung macht." KZfSS Kölner Zeitschrift für Soziologie und Sozialpsychologie 73 (1): 301–31. <u>https://doi.org/10.1007/s11577-021-00750-2</u>.
- Saisana, Michaela, Béatrice D'Hombres, and Andrea Saltelli. 2011. "Rickety Numbers: Volatility of University Rankings and Policy Implications." *Research Policy*, Special Section on Heterogeneity and University-Industry Relations, 40 (1): 165–77. <u>https://doi.org/10.1016/j.respol.2010.09.003</u>.
- Saisana, Michaela, and Andrea Saltelli. 2011. "Rankings and Ratings: Instructions for Use." *Hague Journal on the Rule of Law* 3 (2): 247–68. <u>https://doi.org/10.1017/S1876404511200058</u>.
- Slager, Rieneke. 2015. "SRI Indices and Responsible Corporate Behavior: A Study of the FTSE4Good Index." *Business & Society* 54 (3): 386–405. https://doi.org/10.1177/0007650314557933.
- Smith, Jeremy N. 2015. Epic Measures: One Doctor. Seven Billion Patients. New York: HarperCollins.
- Spoerhase, Carlos. 2018. "Rankings: A Pre-History." New Left Review 114: 99–113. https://newleftreview.org/issues/ii114/articles/carlos-spoerhase-rankings-a-pre-history
- Stack, Michelle. 2016. Global University Rankings and the Mediatization of Higher Education. London: Palgrave Macmillan UK.
- Werron, Tobias. 2015. "Why Do We Believe in Competition? A Historical-Sociological View of Competition as an Institutionalized Modern Imaginary." *Distinktion: Journal of Social Theory* 16 (2): 186–210. https://doi.org/10.1080/1600910X.2015.1049190.
- Werron, Tobias, and Leopold Ringel. 2017. "Rankings in a Comparative Perspective: Conceptual Remarks." In Geschlossene Gesellschaften: Verhandlungen des 38. Kongresses der Deutschen Gesellschaft für Soziologie in Bamberg 2016, edited by Stephen Lessenich, 1– 10. Essen: DGS. <u>http://publikationen.soziologie.de/index.php/kongressband_2016</u>.
- Wilbers, Stefan, and Jelena Brankovic. 2021. "The Emergence of University Rankings: A Historical-Sociological Account." *Higher Education* 86 (4): 733-750. <u>https://doi.org/10.1007/s10734-021-00776-7</u>.
- World Bank. 2021. "World Bank Group to Discontinue Doing Business Report." Published on September 16, 2021. <u>https://www.worldbank.org/en/news/statement/2021/09/16/world-bank-group-to-discontinue-doing-business-report.</u>

¹ I borrow the analogy from Berman and Hirschman's (2018) review essay, in which they use 'genre' to refer to the loosely connected body of work on quantification.

⁴ We can also find research on rankings of individuals, such as artists (Buckermann 2021), athletes (Lom 2016), and scientists (Macri and Sinha 2006), but also of non-actor entities (e.g., products, vehicles, works of art, etc.). Although these and other works in this category present us with important contributions to the study of rankings, the research on rankings of individuals could hardly qualify as a distinct strand.

² An interesting example of the former is the ranking published in the 2000 *World Health Report* by the World Health Organization (WHO), which ranked countries' health system performance. According to a later account by the *Lancet* editor, Richard Horton, the ranking 'upset' many WHO member countries and was therefore never reproduced (quoted in Smith 2015, 116). An example of the latter is the World Bank's highly influential *Ease of Doing Business* index, which was recently discontinued due to 'data irregularities' (World Bank 2021).

³ Due to the limitation of space, and unless stated otherwise, most references cited in this section are for illustrative purposes and do not necessarily represent the only or the most important work in the given strand.