Market making and the (re)production of knowledge in public universities

Nick Lewis and Susan Robertson

Abstract

This collection of short essays presents and examines six vignettes of organisational change in British, New Zealand and European universities. Drawing on the social studies of economisation literature, formal research projects and auto-ethnographic insights, the authors detail profound changes in how knowledge is produced in universities. They examine policy documents, calculative techniques and management practices to illustrate how proliferating market rationalities, technologies and relations are reimagining university missions, reframing their practices and refashioning their subjects. Their vignettes demonstrate that market-making pressures are emerging from micro-scale socio-technical arrangements as well as altered funding models and external policy imperatives. They reveal the extent and detail of market-making pressures on academic practice in research and teaching. Finding ways to contest these pressures is imperative.

Keywords

academic entrepreneurs, commercialisation, edu-business, higher education markets, knowledge economy, private companies, think tanks, university rankings

A market-making moment?

Universities everywhere are experiencing on-going organisational change. Whether read from the bottom-up through the strategies of entrepreneurial universities (Komljenovic and Robertson 2016) or top-down through government funding models (Newfield 2008; Readings 1996), change is seen as entangled with the penetration of market relations (McGettigan 2013; Robertson and Muellerleile 2017; Williamson 2021). But what exactly are these market relations in contemporary universities, what work do they perform, and how are they driving change? This article is composed of vignettes that examine change in today's universities by foregrounding the *making of markets*. The vignettes shed light on a small but diverse set of sites and moments in university life at which market imaginaries, practices, relations and institutions are brought to bear on the organisation of public universities. They reveal how universities are being restructured into market forms – not by any singular or programmatic project but as the consequence of the work of multiple agents. Read together, the vignettes show how market making in universities is a functionally, temporally and geographically uneven process rather than a smooth rolling out of a universal and universalising project.

Commentators from Karl Polanyi (2001) to the actor network inspired Michel Callon (1998) have argued that capitalist markets are far from the institutions assumed in economics textbooks (Berndt and Boeckler 2011). They are not uniform, abstract, politically neutral, spontaneously occurring or inherently self-regulating (Beckert 2009). Rather, what we know as markets are 'actively constructed', 'endlessly diverse', and 'wrapped up with all sorts of livelihoods, identities, intentions, and meanings' (Prince et al. 2021: 3). In Koray Çalışkan and Michel Callon's terms (2009), markets are made by disentangling activities and objects from matters of social, moral or public concern and making them available for market exchange. This includes cultivating market behaviours and formatting spheres of social life for market governance. In this sense, markets are achievements – emergent, dynamic, held in temporary relation by the arrangements that stabilise their contradictions, yet are never fully achieved (Çalışkan and Callon 2009). Given their centrality in social life, they have been under-researched in these terms, by advocates and critics alike (Berndt et al. 2020).

Economic sociologists have long shown markets to be both social arenas and social constructions. Markets are, as Jens Beckert observes, always 'situated within a specific political, social and cultural context that constitutes the actors' goals, strategies, and cognitive orientations' (2009: 251). They are also socially configured or structured by social institutions, both those formalised through the state and those established by social relations, norms and networks. These institutions structure the sites, terms and processes of market exchange, guiding interactions and providing stability and surety for participants. Markets, in this sense, are thus not self-ordering but have an architecture (Fligstein and Calder 2015). In Beckert's terms, the challenge for a sociology of markets is to explain 'the order of markets'

(2009: 246). He argues that this order emerges from efforts on the part of interested actors to resolve a set of three core problems of co-ordination: (1) establishing the value of goods to permit exchange; (2) securing the confidence necessary for repeated exchange; and (3) setting the terms of competition such that markets survive its destructive forces. These problems are addressed by a mix of social and state institutions. Social embeddedness is thus not only an inherent feature of markets but also a necessary condition for their success.

For Callon and followers, the question is less one of explaining how market forms came to be and more one of the work performed by market-making practices, which may never fully materialise as markets. The metaphor of architecture is too ordered, and the idea of co-ordinating social institutions is overly deterministic. Callon writes of 'processes of economisation in which activities, behaviours and spheres or fields are established as being economic' (Çalışkan and Callon 2009: 370). Kurunmäki and colleagues (2016) add that such processes are made up of practices, ideas and instruments. Those following in this tradition have studied the creation of new markets for financial and techno-scientific products as well as the marketisation of public goods through neoliberal policy agendas (Berndt et al. 2020; Prince et al. 2021). They direct particular attention to how qualities are attached to objects (qualification), rendering them stable and exchangeable. They highlight the performativity of technical devices and calculative practices, such as measurement, benchmarking and ranking, as well as discursive practices that assign new values or create market subjectivities. This more granular critique attends to the performative links between making activities economic, governing through markets, and acting as market subjects, links that are often assumed but not always established in critiques of neoliberal marketisation (Kurunmäki et al. 2016: 397).

Despite their differences in analytical emphasis and methodology, the more structuralist accounts of Beckert and Fligstein and post-structuralist analyses of Callon and followers share two sets of key insights in the way they theorise the making of markets. First, they insist that markets are made and set out to study how they operate and what they actually do. Second, they direct attention to how agency is shaped, pacified and aligned to make markets work. To this we might add that Polanyi, Beckert and Callon all agree that the markets of neo-classical economics are unfinished and unachievable (Muellerleile 2013). While they may disagree on the nature of this work and the agency involved, they are each interested in the work performed to make them and its politics. These insights allow us to use the vignettes to extend critique of the penetration of economic rationalities in universities to a more granular analysis of their governmental effects. What is at stake, we argue, is not just the rise of market ideology, its adoption as an instrument of policy, and the subjection of activities to market disciplines, but also how routine practices of measuring and qualifying university activities are remaking the university and its subjects in market form.

Critics of the marketisation of public universities have begun to ask these kinds of questions (Wright and Shore 2017). Authors have shown how market making takes multiple forms from funding and administrative reforms (Readings 1996), to reimagining university missions (Shore and MacLauchlan 2012), establishing marketable qualities through rankings (Hazelkorn 2007), internal cost accounting (Baskaran and Boden 2007), calculating 'employability' measures that demonstrate the links between courses and employment (Boden and Nedeva 2010), and incorporating higher education into global trade agreements (Robertson 2017). Accounts are emerging directly within the market-making tradition (Komjenovic and Robertson 2016, Williamson 2021). Williamson's analysis of market-making through digital platforms and the work of publishing houses and other edu-businesses echoes through the vignettes that follow, which open up other university sites and practices to a similar critique.

Our vignettes examine diverse forms of contemporary market making in public universities. They derive from a multi-year, multinational, multi-institutional research programme called Universities in the Knowledge Economy, which was funded by the European Union and brought together PhD students, postdoctoral fellows and faculty in an on-going dialogue around individual research projects exploring elements of the transformation of contemporary universities. Our vignettes come from this research. We select them for two reasons. First, they deliver unexpected insights into market making as a source of that transformation. Second, they open up a distinctive set of moments and technologies in the practice of market making. They take us from *imagining* market futures to various grounded initiatives in *making* markets within universities from reframing their work, reconfiguring boundaries of the university, creating and qualifying new products in higher education and research, creating commercial markets within and across university boundaries, and reworking relationships among subjects within and beyond universities.

The vignettes are presented in a sequence that runs from the abstract (and global) to micro-practices at the highly localised scale, and from high order reformatting at the level of policy discourse to the level of routine practice and the individual actor. We do so to invoke a set of necessary moments in market making: imagining, framing, qualifying and locking in (instituting new practices and subjectifying new subjects). The vignettes demonstrate these different moments but also show how they do not occur in the same way or sequence in every setting. Nor do they define a grand singular project or a complete, shelf-ready model for making markets. Rather the vignettes describe a messy, contingent, sometimes contradictory and always incomplete process, yet one that is resonating across public universities globally. They point to different types of often contemporaneous market-making work from reimagining public universities as markets to reframing their missions and practices in market terms and setting up socio-technical mechanisms that create and qualify market objects and subjects.

The opening vignette (Lewis and Shore) examines *imagining.* It provides an account of the 'imagineering' of the so-called University of the Future by think tanks and consultants; a future of the public university unbundled, marketised and rebundled by the winners of twenty-first century higher education market making. The next two vignettes outline market making interventions that are *framing* university missions and practices in market terms. Vignette two (Komljenovic) focuses on higher education markets and outlines the ways in which competitive universities are reframing themselves as market actors (sellers) by adopting particular management, marketing, ranking and benchmarking technologies, and reframing their students as customers by commodifying academic life. Vignette three (Bajenova) relates to research markets and the reframing of relations between universities and their publics through the competitive co-dependencies of think tanks and university research institutes. The fourth vignette (Lim and Muellerleile) drills down into one of these technologies – ranking – and focuses attention on *qualifying* the research and higher education offerings of universities and how they are being reconstituted into knowable products for market exchange and governance. The final two vignettes focus attention on the micro-scale details of *locking in* markets through new institutions and subjectifying techniques. The fifth (Shore) explores efforts to cultivate entrepreneurs and a new hierarchy of value in the public university (*instituting*), while the sixth (Lewis) describes a psychometric intervention designed to pacify academics and convert them into corporate subjects (*subjectifying*).

The vignettes, then, run from imagining, framing and qualifying to instituting and subjectifying. The format is experimental. It enables us to emphasise the multiple and interconnected dimensions of market making from broad-scale structural change initiated by policy to the micro-practices explicitly aimed at initiating shifts in subject formation. It is also a format in which we can present empirical material from different settings and at different scales and represent the geographical breadth and scalar aspirations of market making. The article ends with a brief afterword that reflects on the variegated nature of market making revealed by the vignettes and what is gained by placing them alongside each other. The vignettes demonstrate how the incompleteness and contradictions of market governance in public universities – and the on-going investment in market making required to stabilise the marketised public university – open up spaces of possibility for alternative futures.

Imagining. Imagineering the marketised university: Consultant evangelists making markets (Vignette 1)

Nick Lewis and Cris Shore

In the twenty-five years since Bill Readings (1996) declared the public university to be in ruins, its future has been widely debated in the language of crisis (Holford et al. 2018; McGettigan 2013). Critics have attributed a succession of reforms to the rise of new managerialism, marketisation and commercialisation, and most recently, financialisation and privatisation (Newfield 2019). They have been less concerned, however, with how the concepts have been assembled, how they have travelled into the universities, and who has performed this work or fashioned neoliberal imperatives into new forms of public universities. This vignette addresses these questions by examining key sources for the inspiration, energy and zeal at work in reimagining public universities. It highlights the work of think tanks and management consultancies in 'imagineering' the future of public universities (Wright 2015). While critical analysis of the work these agents perform in social transformation is limited, especially in higher education, it is clear that they are becoming more influential in shaping social change and constructing futures (Hurl and Vogelpohl 2021; Stone 2013; Vogelpohl et al. 2022).

Naming, framing and shaping the subjects of 'The University of the Future'

In 2012, Justin Bokor, then Executive Director of Ernst and Young's Education Division in Australia, wrote an influential report titled *University of the Future: A Thousand Year Old Industry on the Cusp of Profound Change*. In it, he argues that higher education 'is undergoing a fundamental transformation' and predicts that a set of five global trends in the provision of research and higher education portend new university futures in Australia. The first is the ever-expanding access to university education, including new online options. This is framed as a positive, democratising development. The second are the market disciplines generated by intensified competition for students in ever-tightening government funding environments, which, Bokor suggests, will enhance the quality of education. The third is the rise of digital technologies, which he suggests promises to transform both the delivery of university education and the way its 'value' is created and appropriated. The fourth is the increasing 'global mobility' of students, which Bokor argues will generate new global pathways for students and attract new corporate actors and partnerships among universities to take advantage of them. And finally, he argues that current industry research relationships and experiments with industry-centred curricula presage a future of industry-focused universities.

For Bokor (2012), these trends are bringing forth a 'brave new world' in public universities. He predicts that public universities as we know them will prove 'unviable' within fifteen years in Australia (Bokor 2012: 28) and urges Australian universities and policymakers to act proactively in the face of the challenges. He imagines a future with three distinctive models of the university. The first is the 'Streamlined Status Quo' in which a small number of the more elite established universities will continue to operate as broad-based teaching and research institutions. Even these, however, will progressively transform the way they deliver teaching, organise their research staff and practices, and administer their organisations. A range of 'Niche Dominators' will emerge as other existing universities and new entrants develop business models that target particular 'customer' segments with tailored education, research and related services. He suggests that a set of 'transformers', who are more creative private providers, will build on private investment and traditional university models to create innovative new products and markets that merge established university practices with knowledge economy demands and the possibilities of new media technologies.

Bokor's report prefigures the policy frameworks that will nurture these outcomes and lays out a prescription for success that will also deliver that future. He exhorts universities to prepare proactively, 'future-watch' and 'future-proof' themselves (Bokor 2012: 4). Among other recommendations, he suggests that universities will need to build deeper relationships with industry in teaching and research, attend more closely to their management of risk, and identify a niche in a new ecosystem of higher education and research. At the same time, he encourages policy makers to bring this future into being through funding models and new regulation. Bokor is imagineering the future of the public university as a space that is also rich in opportunities for external, for-profit providers and financial consultants like Ernst and Young.

Prophesising an avalanche

Within months of the publication of Bokor's report, Michael Barber, chief education adviser to Pearson, a British multinational corporation that describes itself as the biggest publishing and education company in the world, and his colleagues at the UK think tank the Institute for Public Policy Research (IPPR) released a report titled *An Avalanche is Coming: Higher Education and the Revolution Ahead* (Barber et al. 2013). The report addresses 'unbundling' in universities, or the breaking up and selling off of the diverse value-creating activities bundled up in the organisation. It claims that unbundling is necessary, progressive, inevitable and already underway (see Robertson and Komljenovic 2016). Citing massive open online course, the privatisation of student hostels, the commercialisation of research and the emergence of private certification regimes, it suggests more might be carved out from the core functions of research and pedagogy. Barber and his colleagues list ten core components of a university that they suggest could be hived off and delivered by single purpose providers. These include research, student services and 'student experience', governance and administration, curriculum development, teaching and learning, assessment, support for city prosperity and the awarding of degrees. Barber imagines a future in which research and teaching, the coupling that defines the public university, could potentially be split to produce leaner and meaner forms of the university.

The report asserts that the model of the public university is broken and that universities are unravelling under pressures of competition for funding, shifting student demands and the diminishing value of degrees. It predicts that in future five distinctive unbundled university models will emerge: elite universities (of the Oxbridge and Ivy League kind); mass universities which use new technologies to provide globalised higher education relatively cheaply to the growing global mass middle class; niche public and private providers of specialised higher education (much like liberal arts colleges in the United States); local vocational universities that serve the research and teaching needs of regional economies; and finally non-university institutions with degree accrediting powers that deliver lifelong learning. Barber's call to unbundle the public university imagineers what he claims is already unfolding; a future that will usher in a new 'golden age for higher education'. Those universities that do not 'seize the initiative and act ambitiously', he warns, will be swept away by 'an avalanche of change' (Barber et al. 2013: 5).

Both *Avalanche* and *University of the Future* cultivate the narrative that the public university is in terminal decline and therefore ripe for innovation and intervention by for-profit providers. While Bokor presents more evidence than Barber, neither report offers much sustained analysis of current trends, yet both argue that the public university must be urgently re-imagined. They offer their own blueprints for the future by selecting events that characterise the present and apparent trends that will bring about the future in the way they imagine. That is, by promoting a future which they claim is already unfolding and then recommending actions that will bring it about, they present themselves as prophets and agenda-setters for this brave new world of higher education.

Both reports are animated by market-based and market-making imaginaries of the present and future. They take as given and desirable the neoliberal models of funding and new public management that have already transformed universities and undermined the very idea of the public university. Each makes a series of claims about successful experiments with new models of provision or innovative practice in pedagogy and organisational design, experiments that are said to have been launched from beyond public universities. They accentuate the positives in the futures they imagine: wider access to universities, enhanced employment opportunities for graduates, new entrants that tailor products to needs, new efficiencies and cost savings, greater responsiveness to national economic growth imperatives, new investment that directs resources to where they are most needed, and a diversity of educational experiences that meet demands by students to 'succeed' in life.

Prophets and profits of promissory imagineering

The reports present a futurology anchored more in evangelism than analysis. Their visions of a good future are derived from reinterpreting the purpose of public universities in moral terms of equity, social advancement and inclusiveness and seeking to align this purpose with the technical and moral imperatives of the market (individual freedom, competition, efficiency and enterprise). *Avalanche* is especially evangelical, conjuring its promissory future from visions of apocalypse, repentance and salvation, and parables of the success of those who have made fame and fortune by following trajectories not obviously shaped by conventional pathways through public universities. While its visions are hardly perspicacious and its parables are at best selectively drawn, *Avalanche* is presented as prophesy. Its prophets preach that its warnings must be heeded by swift and decisive action.

Both IPPR and Ernst and Young, of course, are knowledge brokers, imagineering and prescribing the future for commercial gain. They forecast scenarios and make promises that they represent as advice on prospective futures for politicians, policy makers and publics. Bokor imagines (and advocates for) conditions that will allow his international accountancy and management consultancy to expand into the higher education sector, and openly pitches for the business of helping universities adjust, or, better still, generate first-mover advantages (see Bok 2009). *Avalanche* was authored by three executives of the multinational higher education corporation, Pearson, including Barber who was at the time its Chief Education Advisor. Pearson was already making markets in public universities and stood to become an even greater beneficiary of unbundling. Barber himself has become a guru of market making in education and was subsequently appointed to head the UK government's Office for Students, a powerful new body established by the Higher Education and Research Act 2017, whose main role is to increase competition and student choice, ensure 'value for money', and oversee the granting of degree awarding powers and university title.

Our point is that these reports, and others like them, are forms of futurology. They imagine a future; they carefully select and arrange elements of transformations already underway to claim that this future is already in the making; and they build cases for their own visionary acumen and the moral rectitude of the imagined future. This form of imagineering becomes entangled with strategic and popular readings of transformations already underway and the interests embedded in them, not least those of the imagineers themselves. Despite criticism from commentators about the underlying analyses of the present and about the assumed merits of the imagined futures, the futurology is performative. In both *Avalanche* and *University of the Future*, the sense of imminence and urgency attached to the narratives in the reports add new force to this performativity. The metaphor of the avalanche demands rapid response, and *Avalanche* itself proclaims that ‘deep, radical and urgent transformation is required’ (Barber et al. 2013: 3). This call to action is also premised on the rhetorical claims that ‘standing still is not an option’ (Barber et al. 2013: 6) and that if universities act now and in the way these reports suggest, ‘exciting times’ lie ahead (Bokor 2012: 4). The particular future imagineered in these reports is, of course, one of ‘more market’. In this respect, the reports are explicitly aimed at *market making*.

As a final comment, we must pose a more pointed political question. While this vignette focuses attention on imagineering as a moment, sphere, and set of practices in university market making, it is important also to ask who is doing the market making and for whose benefit? Here the answer is clear and disturbing. It is a new class of expert, one that is making markets to make profits, through the techniques and in the image of their expertise. As exemplified by Barber, these experts are beginning to forge what Keller Easterling (2014) might term an ‘extrastate’ governance in which experts in managerialism and the private and public entities that employ them are forging interconnected governmental networks in which profit and power are entangled.

Reframing I: From universities to higher education market actors (Vignette 2)

Janja Komljenovic

This vignette steps down a level of abstraction to focus on the micro-processes through which universities are becoming active agents in framing and formatting markets. It is based on the cases of two British universities, here called Curie University and Austen University, which are transforming themselves into market actors that are selling higher education. They both belong to the Russell Group of prestigious research-intensive universities. I argue that at their administrative centres, they are reframing their practices, organisational structures and cognitive orientations in market terms and in so doing are formatting higher education markets. The vignette draws on a series of interviews with university administrators at middle-management level administered in the mid-2010s.

Global knowledge economy and the formatting of higher education markets

Curie and Austen Universities are caught up in the political, economic and cultural projects of the knowledge economy that have imposed new expectations on universities to stimulate economic innovation and prompted a range of higher education governance reforms in the UK and elsewhere (Jessop and Sum 2014). These reforms, designed to have introduced 'market forces' into higher education through 'quasi-market' governance at the system level and new public management at the institutional level (Middlehurst and Teixeira 2012). In the UK, and England specifically, a raft of policy decisions including the introduction of tuition fees and the removal of regulation on enrolments have further intensified market discourses and disciplines and pressures to make markets in universities (Carasso 2014). Similar pressures have emerged from normalising student markets in universities through explicitly framing higher education as an export industry.

Universities in the UK have been made subject to market instruments that were constructed for informing student choice. They were endorsed by the government and largely created by private companies. These instruments have become key for universities and their decisions. Most important are national surveys and rankings, such as *The National Student Survey* administered by the market research company Ipsos Mori; the national league table *The Complete University Guide*, compiled by IDP Connect, a division of international education services company IDP Education; *Destination of Leavers* measuring graduate employability administered by the Higher Education Statistics Agency; and *The International Student Barometer* administered by education benchmarking firm iGraduate, which was acquired in early 2013 by education software and support services corporation Tribal Group. These various measures are complemented by international university rankings that create cross-cutting indicators of status and quality that also make markets for domestic and international students alike.

The most influential are: the World University Rankings administered by publishing company Times Higher Education and owned by private equity firm Inflexion; QS rankings administered by the consultancy company Quacquarelli Symonds; and the Academic Ranking of World Universities (ARWU) administered by Shanghai University.

Market making at Austen and Curie Universities

These market instruments are taken very seriously by Austen and Curie universities (Komljenovic and Robertson 2016). They form committees to study survey results and decide on measures to respond and implement decisions that are seen to satisfy students. The universities communicate to students what they have done to address the findings of student surveys. The universities also use their ranking position in their marketing material. More importantly, the two universities carefully study the methodologies of the rankings, league tables and surveys, in order to work on the elements that might gain them a higher place. They also study their competitors' strategies and ways of working in relation to these league tables. By so doing, the market instruments become performative, and universities become calculative agents.

Austen University is differently calculative to Curie University. The starting position of the two universities, some twenty years ago, was very different in that Curie was ranked substantially higher and Austen was not a Russell Group member. Austen employed a charismatic vice chancellor with a clear plan on how to 'upgrade' the university. A decade of intense reforms, reorganisation and disciplined administration followed and delivered on the goal. Austen climbed the rankings ladder, attracted national students with higher grades, attracted substantially higher numbers of international students and increased research income. The governance and administration of this university is also very different to Curie. University management at Austen had been restructured to mirror the private sector. A number of key managers of administrative units came from the private sector and gained executive powers for their decision making. They appear to have brought with them a competitive, market-oriented approach rooted in a language of branding and 'returns on investment'.

Curie University also changed its governance structures, with the aim of ensuring faster and more efficient decision making. This affected the committee and general governance structure but also how the administration is organised. Substantial restructuring saw administrative units reorganised, some administrative staff made redundant and new posts created. The restructuring resulted in an expansion of units connected to the university's growth efforts, namely the international office, the marketing office, alumni office and commercial services. New jobs were created for market researchers, corporate intelligence officers and alumni officers. Units were renamed, including one that had its name changed, first from 'schools liaison' to 'recruitment' and then to 'student marketing and customer relations'. Other units that did not contribute to the university's surplus, such as ceremonial events, saw no growth or even retrenchment. Staff in administrative units have experienced increasing levels of performance measurement, which have recently been explicitly connected to the external world (for example, the graduate employment rate is used to evaluate employees' performance in the careers office).

The two universities use diverse practices and devices to establish themselves as sellers in an education market. They use market research including analysis of competitors, research into student behaviour and choices, qualitative and quantitative research of students as customers, analysis of league tables, seeing what successful universities are doing and copying practices. They undertake promotion and customer orientation by visiting large numbers of foreign countries, setting up call centres for students in their native languages, using customer relationship management software, recruitment agents, student surveys and league tables, and they invest in new buildings and infrastructure to attract students, all the while striving for a higher position in league tables. Both universities also engage in new financial practices, including a finance/budget-driven orientation focused on income, cost efficiency, speedy decision making, internal data collection and analysis, corporate intelligence and benchmarking. They also cooperate strategically with other universities, albeit guided by commercial sensitivity and financial secretiveness.

All this market making and framing activity rests on the identification and development of new products, or at least the commodification of existing activities by reframing them into commodity forms and market relations. What was before simply 'studying', for example, is now reframed as 'student experience', which is a complex set of services. It extends from pre-enrolment contacts and activities to all dimensions of student life, and on-going contacts after students leave. The reframing has altered the universities' treatment of potential students before recruitment, including shaping their views of university education through marketing campaigns mobilised in recruitment fairs, social media, visits to schools and calling potential students. The students' experience at university is reframed as not just about teaching and learning but also about services like health, counselling, careers advice, vulnerable students' support, sports facilities, student societies, creating a vibrant environment, and so on. Where once these were treated as part of student life, encouraged where appropriate, and made available to students if and when desired or required, they are now increasingly marketised and made available as products. They are bundled up as 'student experience' which is itself benchmarked and ranked as yet another realm of competition. Post-university, 'student experience' extends also to the university's relationship with alumni, where the institution seeks to build lifetime relationships with their former students, offering them activities and opportunities, as well as including them in various university and recruitment activities; and crucially also to attract donations. While common practice in US universities, the discourse and practices of alumni giving have been transported into British universities as a strategy to raise funds, enhance the student experience, and set universities on a market footing.

Conclusion: Remaking public universities through markets?

Market encounters are thus carefully designed into the cycle of interactions with students. Significantly, the students' experience is only one of many new services that are sold to students, prospective students, publics and governments (see Komljenovic and Robertson 2016). In all these ways, students are constructed as customers in universities that are not private universities. Austen and Curie are both public universities providing heavily subsidised services and charged with a particular set of public purposes that appear at odds with commodification and private profit (Komljenovic and Robertson 2016). Nonetheless, their administrators insist that their actions are strategic in response to changing funding environments and regulatory signals. They also insist that they remain discerning with respect to what, how and why to sell. They add that the main purpose of their money-generating activities is to enhance the student experience and the quality of academic work as funds are reinvested in the university. Both universities see themselves as academic institutions serving the public interest but forced to compete and earn money from the market in order to survive. They recognise that their brand relies on their Russell Group membership and the notion of the public university itself (a venerable institution steeped in history and set apart from the profit-driven and new entrant private university). The administrators recognise the changes wrought by their market-making activities but see no inherent contradiction between them and the idea of the public university. As the other vignettes in this article confirm, the replacement of collegiality, disciplinarity and publicness by markets principles is not seen as a matter of major concern to university managers interviewed.

Reframing II: Brokering in the marketplace of influential ideas (Vignette 3)

Tatyana Bajenova

In this vignette, I examine how universities are becoming increasingly linked to think tanks in the new markets for impactful knowledge discussed in the previous vignette. I draw attention to the marketised partnerships and hybrid research-teaching models that are taking form across the borders of the university in a competitive marketplace for producing ideas that will influence public opinion and policy. While there is a long history of relationships between university research and policy making (Pestre 2003), this has been developed around an understanding that universities offer a more distanced critical orientation than think tanks, which provide particular issue-focused reports (Weaver 1989). In recent years, however, think tanks have expanded their role into education activities, while new university-based research institutes have begun to build more market-centric knowledge production relationships with governments and to compete in policy fields that were once the preserve of think tanks (Stone 2013). This vignette examines the blurring and shifting relationships between universities and think tanks in relation to the Brussels-based marketplace for influential ideas regarding European Union (EU) policy. To do so, I draw on material from websites and interviews with representatives of think tanks, university-based research centres and the EU institutions (Bajenova 2016, 2018, 2019).

Think tanks as training providers: Universities with(out) students

Some think tanks claim that their role is to inform and educate the general public and serve the public interest (Stone 2013). Once described as 'universities without students' (Weaver 1989: 564), many think tanks today operate as quasi-training institutions and may have educational subdivisions that provide specialised or generic public policy training (Boucher 2004; Medvetz 2012). Some even offer higher education qualifications (Bajenova 2016; Stone 2013). For example, the Belgian think tank Egmont – The Royal Institute for International Relations organises special courses and training programmes for government, EU officials and practitioners in fields ranging from public administration to security and defence (Egmont Institute 2016). Others go beyond more traditional executive programmes to connect students and academics directly to the policy world, offering academics visiting fellowship programmes and opportunities to collaborate with their own researchers. The Brussels-based Centre for European Policy Studies (CEPS), for example, has established the CEPS Academy which provides graduate and postgraduate training in EU policy studies through its series of lectures, open discussions and interactive sessions with academics, practitioners and officials (CEPS 2016a).

Other think tanks run master's and doctoral training programmes. The Pardee RAND Graduate School (PRGS 2016) in the United States, for example, promotes itself as 'the largest public policy Ph.D. programme in the nation'. In Europe, the Institut für Europäische Politik (IEP 2016) has combined with the Centre International de Formation Européenne not only to run an online master's programme but also to launch a PhD support programme that offers three-year scholarships to doctoral students from Central Asia and the Caucasus funded by the Volkswagen Foundation and the European Commission through the Erasmus+ Programme. These activities reflect a 'transnational trend' in think tank practice (Kelstrup 2016). While they might be interpreted as part of the 'public interest' mission of think tanks (Boucher 2004; Stone 2013), they are also strategic moves to invest in future political capital and build intellectual communities around them by training future policymakers and enhancing their academic capital and credibility in the eyes of policymakers and the general public. They draw on EU research and education funding, including the EU's Erasmus+ programme through Jean Monnet activities which encourage 'the dialogue between the academic world and policy makers' on EU policies (European Commission 2017). As proclaimed 'bridges' between research and policy (Stone 2013: 77), exporters of ideas and intellectual frameworks, and key intermediaries in global policy mobility (Wallace 2004), think tanks are important targets for this funding. These educational activities often motivated by EU funding programmes have enrolled think tanks and universities into a new relationship which encourages both of them pursuing opportunities to enhance their policy significance (Bajenova 2016, 2018, 2019), that not only further erodes the boundaries between the two types of institution (Kelstrup 2016) but also reinforces the main mission of think tanks and reworks that one of universities.

Universities as providers of policy-relevant expertise

Universities are seeking to expand their activities and diversify their funding sources in response to cuts in funding (Plehwe 2011). Encouraged by wider commitments to commercialising their activities and enabled by flexible employment contracts and the reputations of 'star intellectuals', universities have begun both to compete directly with think tanks and to partner with them. Prominent among their efforts, has been the establishment of consultancy-oriented public policy research institutes (Plehwe 2011). For example, numerous university-based EU research institutes involved in EU policy debates have been developed in recent years (Ullrich 2004).

Representatives of policy departments of the European Parliament confirm that universities now compete with think tanks to provide input for politicians and that their 'framework contracts go to consortia of the university research centres as much as the non-university affiliated think tanks' (Interview, Brussels, April 2015). Universities now have the reputation of being able to produce policy-relevant research and often collaborate with EU institutions to organise joint events and provide knowledge. Examples of well-placed university-based institutes in this regard include the European University Institute (EUI) in Florence, as well as the UK-based London School of Economics and Political Science. The EUI (2016a) is one of the partners of the European Parliamentary Research Service, an internal think tank of the European Parliament (2016). Its Robert Schuman Centre for Advanced Studies brings academics and practitioners together in workshops, seminars, and invitation-only policy roundtables to advance its mission 'to engage with the world of practice through high level policy dialogue and executive training' (EUI 2016b). The European Institute at the London School of Economics and Political Science (LSE) is considered one of the most influential think tanks producing research on Europe (LSE 2014), even if it is regarded as 'more academic' (Interview, Brussels, March 2015). The Institute is able to leverage influence to reinforce its reputation in think-tank and university worlds simultaneously.

Not all European university-based research centres are as ambitious in claiming their impact on policy making (Bajenova 2016), while many policy actors value the traditional separation between think tank and university-based policy research. They point to the different capabilities of universities (strong research capacities and academic freedom) and think tanks (understanding of the 'nuts and bolts' of the EU policy making and ability to translate research into policy recommendations) (Bajenova 2019: 67). These differences in research capability allow for collaboration across functional divides in which universities and think tanks can deploy their comparative advantages to create a richer hybridised policy knowledge (Bajenova 2016, 2019).

Cooperation and hybridisation of think tanks with universities

Boundaries between think tanks and universities are thus becoming increasingly porous. Much of this takes the form of regular exchange of personnel between them. Experience in one field is seen as advantageous in the other, with researchers often functioning simultaneously in both fields. A strong academic background is necessary for researchers at research-intensive think tanks, while a think-tank experience will open doors for academics with policy makers. Sometimes, researchers function simultaneously in both fields pursuing a PhD programme or occupying a permanent academic position while working in, or with, a think tank. When researchers cross the boundaries, new knowledge and competences are transplanted or developed (Lewis 2010). Boundary crossers confirm that skillsets are similar but that work in think tanks requires and imparts additional communication and fundraising skills. All this has contributed not just to blurred boundaries but also to hybridisation on both sides of the university–think tank divide (Bajenova 2016).

The research-oriented activity of many think tanks and the media popularisation of think-tank experts have given them a credibility and public influence that has challenged the research role of universities (Misztal 2012). At the same time, the focus of universities on increased impact, creating better relationships with policy makers, and developing public policy schools or research institutes sees them competing with think tanks. Some think tanks have sought out structured partnerships with universities as way to protect themselves against these risks and/or capitalise on the opportunities they represent (Interview, London, September 2014). The most frequent form of cooperation is by forming partnerships for research projects. Joint applications for EU funding programmes, such as Horizon 2020, can strengthen bids for both partners: universities can make claims to 'impact' and access the enhanced policy and media audience and fundraising skills of think tanks, while think tanks can draw on academic capital to support claims of 'quality' or independence (Bajenova 2016, 2019: 68).

Such research-based partnerships are being developed alongside joint study programmes (Bajenova 2016). The CEPS Academy previously described initiated the Integrated Programme in European Policy Studies in close cooperation with European universities. This programme offers practical content and policy-oriented training and blends lectures with case-studies, problem-based learning tasks, discussion groups, workshops and training in communication skills (CEPS 2016b). Such programmes allow think tanks to enhance their credibility and universities to strengthen their public reach and enhance their performance in terms of 'employability', which has become increasingly important in public funding models and the market reputation of universities. As 'employability' discourses become more entrenched and signals from employers feed back into curricula and the organisation of degrees, we can expect further co-developed and co-delivered study programmes that prioritise professional competencies and seek to prepare graduates to meet the specific and immediate needs of an employer rather than the wider and longer-term interests of societies (Boden and Nedeva 2010).

Conclusion

This vignette examined the way universities are being positioned in a competitive marketplace for policy ideas in which they are increasingly seeking more policy-oriented research while think tanks are engaging more in training programmes. The various initiatives described call into question long established boundaries between think tanks and universities (Kelstrup 2016). They are now competing directly but are also increasingly collaborating across functional specialisms to enhance their specific competitiveness in the new competitive markets for policy-relevant research and 'employability'. In so doing, they are actively framing this new market and building the diverse linkages that are stabilising it around funder expectations, including cross-hiring practices, research partnerships and joint teaching programmes.

However, these experiments in framing a competitive market for ideas are not without contradictions. Universities and think tanks have different strengths and different missions, which are not always mutually supportive. Think tanks reproduce visible components of university operations in their activities (Medvetz 2012) but are guided by their objective to exert influence on public policy, while universities are increasingly being pushed towards a think tank research model, which raises some concerns with the university's wider missions. Observers within policy, think tank and university worlds question the virtue of eroding the separation of competencies and specialised functions. Some fear the rise of a 'polit-or-pop-science' in place of fundamental and public good research (Plehwe 2011: 176). The deeper question is whether the critical stance of public policy research in public universities can survive the client focus of the market in a context of knowledge production dominated by competition, funding constraint and impact assessment.

Qualifying and calculating university values: Working the numbers (Vignette 4)

Miguel Antonio Lim and Chris Muellerleile

Powerful numbers

To say knowledge is produced is not controversial. We would suggest, however, that the value or meaning of knowledge must also be produced. In this vignette, we focus on the ways knowledge is assigned value and made available for exchange in competitive markets. As the higher education sector becomes increasingly marketised, most obviously through competing to attract undergraduate students, a growing number of actors are contriving to create quantitative measures that revalue knowledge as a market resource or product. We briefly consider two related instances of their work as part of university ranking systems and the curation of academic knowledge. Our vignette demonstrates how rankings make the qualities of different universities commensurable, and not just by signifying pre-existing qualities. Rather, in the inescapable interplay of qualification (or the establishment of and judgement about qualities) and calculation in their construction, they create new qualities and displace others in what Callon and Law (2005) term a process of qualculation.

The growing power of numbers to shape decision making is widely recognised (Desrosières and Naish 2002; Espeland and Stevens 2008; Redden

2019). In both Western and Eastern traditions of governance, numbers have been used widely to frame potential courses of action and make decisions. Modernity saw an explosion in numerical measurements and calculative governance and the increasing adoption of probability models (Hacking 1990). The importance of numbers has become cemented in policy environments characterised by the rule of experts (Mitchell 2002). In recent decades numerical measures have been further legitimised and entrenched by new discourses of evidence-based policy (Sanderson 2002) in which 'evidence' is taken to mean strong and *robust* numerical data. Calculation, calculative expertise and governance by calculative expertise and practice have given numbers a pivotal and strategic importance.

The making of numbers in higher education

Subjected to neoliberal pressure from policy makers 'above', and widespread acquiescence from 'below', most university leaders have willingly embraced this world of numbers and calculations (Espeland and Sauder 2016). They have moved to align their decision making with key measures and have created additional measures to incentivise employees to treat those measures as behavioural targets. Their own performance now depends upon being able to demonstrate progress towards becoming better (even 'World Class') universities (Salmi 2009). They have, in concert with various big-data businesses and management consultancies, designed different sets of numbers to document this progress, including citation data, student satisfaction and reputation survey results (Shin et al. 2011). Significantly, as with all numbers (see Latour 1987), those in higher education are representations rather than ontological truths – they are constructed with a certain version of reality in mind, but because they are supported by powerful actors in and outside of universities, they nudge students, teachers and researchers towards a performance of that reality. As such, they also to some extent prefigure the future of the university.

University rankings are perhaps the best known, most controversial and most performative numbers in higher education. They are *made* and continuously *remade* by a small set of ranking agencies, and the numbers have been used by others to *make* and *remake* university worlds. There are many kinds of professionals involved in the production of rankings instruments and every number is the result of multiple decisions about what qualities represent the ideal university (Lim 2017). Ranking agencies coordinate and stabilise the relationships among sets of numbers as well as the relationship between those sets and the qualities of education as a good. In other words, rankings help frame education as a commodity, and the quality of that commodity is best represented by its position in a ranked table. The endeavour to accommodate the concerns (shared and competing) of their different audiences, including consumers of university 'products', policy makers and universities, brings the discipline of ranking to the 'market' where these commodities are necessarily traded. As rankings and the calculations underlying them are increasingly aligned with financial numbers, including the size of endowments and operational revenues, the 'feasibility' of any course of action is subjected to ever-more sophisticated forms of university governance through financial – and other forms of – metrology (Bandola-Gill et al. 2021). In each of these senses (assembling the actors in a university, co-ordinating their relationships, and aligning economic relations) rankings can be thought of as a kind of *social* calculation of qualities. Neither the imagined qualities themselves nor the practice of measurement exist outside of a socialised practice of market making.

Numbers, differences in quality and the qualities of difference

Different ranking organisations have conceived of and conceptualised higher education quality in different ways, thus initiating different socialities of calculation. In practice, this has meant different methodologies, different calculations, different measures, different numbers and differing rankings. The Times Higher Education (THE) produces perhaps the most well-established set of rankings. Its primary readership consists of university leaders, academics and senior administrators. They subscribe to it to monitor the development of issues of interest in the sector. Its rankings must appear credible to this insider audience.

THE has sought to identify indicators and associated measures of quality that will inform and convince this audience. It produces a simple table that assigns rankings to universities and is made available to its readers in a magazine and an interactive website which are filled with commentary, 'market insights', and an editorial that highlights the 'most important' trends in the numbers. Its then rankings editorial director, Phil Baty, presents himself (and by extension, his rankings) as a 'Franker Ranker'. He has routinely called for feedback on its ranking products and has over time refined the rankings by soliciting think-pieces from academic leaders at prominent universities as well as by interacting with data specialists and commissioning work from infographic experts (Baty 2010; Lim 2017). In his presentations of the rankings, he openly acknowledges some inherent weaknesses in university rankings, such as technical issues when comparing citation data between different academic fields (more on this later). Another update to its methodology is scheduled for 2022 and again claims to be based on careful consideration and consultation with sector experts. In these various ways, THE has positioned its rankings as the sector's own rankings. However, that THE's reflexivity unsurprisingly does not extend to the possibility that rankings themselves may be damaging, which would imply that they should be completely eliminated.

The competing QS World University Rankings, published by Quacquarelli Symonds, is positioned differently in terms of the assemblage of relations among qualities, users and priorities embedded in the calculations. They are positioned more as informing higher education markets, and they target fee-paying international students, employers and nation states concerned about 'returns' on their investment. They give a higher priority to employability as a measure of university quality, building on a survey of employers to measure the quality of students from different universities. QS calculates an employability ranking, which positions universities explicitly in terms of a return on investment for students, parents and state funders. The ranking also offers employers a measure that allows them to monitor and assess their recruitment practices. For several years QS has chosen to retain a relatively straightforward bibliometric analysis to measure research performance rather than to follow THE and develop a complex calculation of reputational and citation data that measure quality in ways that aim to satisfy the more sophisticated understandings of universities and their academics.

Calculating quality: Qualification

The demand for, and usefulness of, numbers has surged with the new technological capacity to produce and manipulate data in digital settings (Muellerleile and Robertson 2018). Enhanced computing power, the collection and storage of big data, the development of sophisticated algorithms necessary to make use of the databases, the conjuring of new calculative technologies of governance in universities, and the cultivation of the new subjects of rankings and university markets are all entangled in performative and co-constitutive inter-relationships. The calculation of numbers has created new possibilities and demand for still more numbers. In the language of Callon and colleagues (Callon and Law 2005; Callon et al. 2002), universities have been made the subjects and objects of complex market-making processes. Rankings make universities commensurable through what Geoff Mann (2018) calls ‘adequation’. Through this process of abstraction, universities are rendered similar and the remaining differences between them are best explained by a rank. Meanwhile, the rankers encourage universities to ‘perform’ their ranking through marketing that promotes their score. In this way the ranking agencies create the very qualities that they purport to measure – the calculations made are creative rather than simply signifying existing qualities.

While computers can calculate this data, however, it is another thing to build up the *meaning* around these numbers. Some of the most important numbers in THE, as well as other ranking calculations, are those that have to do with the measurement of research impact. Citation data is an important component of university rankings and the challenges rankers face in trying to strengthen their capacity to analyse bibliometric data provides a clear example of the flaws in governing by numbers and calculation.

Citation data is often used to measure academic impact and to stand as an indicator of research performance. It aims to capture the effect that an idea has had on the wider scientific field. When aggregated across the works of an academic or their research group or university, citation data is taken as a measure of research performance and in turn, an indicator of standing. The more highly cited an author or a paper is, the more academic influence the author or the paper is believed to have. While this might seem reasonable, the use of citations to measure impact, let alone performance or standing, has been long criticised (Chubin and Moitra 1975) and has attracted new and strident contemporary critics (Bornmann 2013; Power 2016). Some of these critics argue that citation data can be distorted by established academic practice. Citations can amass around a critique of flawed or controversial research, or their absence can signal an inability to engage with brilliant work at the cutting edge of fields. Fast-publishing practices mean papers are sometimes cited superficially without anyone being deeply influenced by the ideas contained in them or simply because they are trendy. There is also intentional ‘gaming’ of the system by developing citation networks where colleagues and friends cite one another as a form of reciprocity. Others point to issues to do with the details of the measures – criticisms of the allocation of weightings to timeframes over which citations are measured, the weight given to different journals, or problems of disciplinary specificity.

The political nature of these numbers and the fact that they are sometimes contested means that ranking agencies, universities and publishing houses have all had to enhance their calculative capacity (Muellerleile 2017; Robertson and Muellerleile 2017). In the case of THE, its team of data analysts has grown considerably as it has grappled with the challenge to draw conclusions and make recommendations from its calculations (Lim 2017, 2021). At the same time, it has had to enhance its ability to articulate how its numbers represent quality and why they were chosen. Like other rankings agencies, THE has sought to create further markets around its growing calculative and interpretative expertise. Its particular approach has meant it has focused attention on working with universities to make meanings around its calculations. New meanings, however, underpin the development of new products and markets. THE's *Datapoints Suite* is a perfect example. Designed to improve its cross-university benchmarking products, the service offers detailed performance information across diverse areas of university activities. Ranking agencies are increasingly engaged in the business of making new markets by generating new data as well as cutting and dicing existing data into new rankings via newer and more sophisticated calculations.

Concluding remarks

All of this feeds into a new 'economy' of numbers in higher education. More data, more computing power, more knowledge, and more students, researchers and universities have all been made to add up to more measurements. Vast quantities of numerical information are now being produced, manipulated and circulated at speed between researchers, research labs, publishers, libraries, funding agencies and crucially, bottom-line focused university administrators. This proliferation and intensified circulation of numbers makes markets for the rankers, the management consultancies, the big-data companies, the marketing consultancies and the like. Universities pay to be ranked. Universities and government agencies commission bespoke sub-university level rankings on research, energy consumption, equity performance and so on. Big data companies store the data, relate it to other data, and write algorithms. Journals and academic data manipulators such as Scopus, Academia, and Google Scholar sell indices and synopses of individual or group performance back to academics, universities, promotions boards, government agencies and any other consumer to buy. Marketing and public relations agencies issue new statements on each release of the rankings, subtly selecting and/or ignoring unfavourable numbers. Management consultancies manipulate data into templates and benchmarks for managing human resources, or organisational redesign. And so it goes on. At the same time, rankings make the university a market object for students as well as for purchasers of, and investors in, research. This market making encourages the various actors involved in public universities to adopt market subjectivities, from the state agencies in control of funding to banks and investors agency investor (and consumer), from the academic worker (and product developer) to the student and parent consumer.

The economy of numbers in higher education is clearly a *political* economy. It has replaced previous modes of decision making and imposed a regime of governance by calculation and market that is underpinned by the power of numbers to shape decision making. It comes with significant threats to the established purpose and autonomy of public universities. We finish by emphasising three of these threats.

First, a regime of governance by numbers comes with what is often an unspoken premise that numbers should be trusted as objective, independent, apolitical and universally commensurable. This insistence on trust in numbers (Desrosières and Naish 2002; Porter 1996) arises for the very reason that numbers disguise distortions that happen when qualities are converted to quantities. In the process, inherently non-numerical qualities of the objects and subjects that they are supposed to represent become invisible (Hazelkorn 2007), thus the commensuralities established are likely to be flawed. But this distortion is necessarily a simpler form of management based on counting and calculation. As this kind of decision making becomes the norm, there is increasing distance between managers and the substance of scientific and intellectual qualities. This begs the question of what sort of actor is best qualified to serve as a university decision maker, which we address next.

Second, and not surprisingly, there is a new set of prominent calculative experts who work to maintain, refine and proliferate calculations such as rankings. The ranking agencies, publishers and those employed within universities to interact with them constitute a set of interdependent calculative experts who increasingly contribute to defining quality in new ways.

These new experts in higher education are creating the demand for their own expertise and products and project a sense of urgency in the face of risks of a ‘control crisis’. As those most familiar with the numbers and their production, rankers have become increasingly important in interpreting rankings, demanding more data, offering more manipulations, and making recommendations in their name to policy makers and university leaders.

Third, as the two vignettes about the University of Auckland in the next section illustrate, numbers are related to a whole new framework of quality interpretation. This extends beyond bibliometric measures and even beyond the dollar value of research funding a university may attract to an apparatus of award ceremonies, public relations commentaries and internal valuation of the work of individuals and groups within universities. This apparatus is at work re-subjectifying and re-institutionalising universities. It also extends to the internal and external benchmarking technologies embedded in staff performance and satisfaction surveys.

What is at stake with rankings then is not just market making per se, but the redefinition of qualities and meanings at the heart of the university and the construction of altered governance regimes that embody the political work of numbers. Rankings are a political technology, in design and affect. They make markets, but they also alter the valuation of qualities. That is, they qualculate as much as calculate, establishing what qualifies for calculation and gets calculated. They make the judgements built into that calculation (as opposed to the many other calculations possible) and frame who gets to do what as a result.

Locking in markets and instituting entrepreneurship: Commercialisation and the new heroes of the university story (Vignette 5)

Cris Shore

Over the past twenty years, the idea that universities should reform and adapt themselves to meet the demands of the competitive Global Knowledge Economy has had a transformative effect on academia. Alongside their traditional mission of teaching and learning, engaging in research, providing the cultural arm of nation-building and educating generations of future leaders, universities today are now also expected to be commercially minded, entrepreneurial and outward-facing. Demonstrating one’s ability to commercialise research, partner with business and engage with financial 'stakeholders' – activities previously considered the preserve of polytechnics, technical colleges and business schools – has become a new touchstone for university success. At the same time, universities have actively sought to reform their management and governance systems in ways that increasingly resemble those of transnational business corporations. Driven by the relentless pursuit of reputational gain, 'brand' recognition and better financial returns, this has also given rise to the dominance of financial discourse within the university governance. The words 'excellence', 'innovation', 'entrepreneurship', 'commercialisation' and 'return on investment' now feature prominently as building blocks of the university's externally focused activities and as keywords of the university 'third mission' (Shore and McLlauchlan 2012).

Much of my own research into this issue has tried to understand how universities are being networked into this new economy of knowledge production, particularly from an ethnographic and bottom-up perspective (Shore 2020: 36–38; Wright and Shore 2017). How is this 'third mission' with its so-called innovation ecosytems (European Commission 2018: 11, 13; Jackson 2011: 2–4) being enacted in practice? What effects are the associated reforms having on the public university, and what new kinds of academic subject are they creating? In what follows I offer a short ethnographic vignette drawn from my former university as a starting point to answer these questions. As I hope to illustrate, university managers are increasingly emphasising the importance of 'innovation', 'entrepreneurship' and the creation of 'value' as core aspects of the university's mission. Rendering academics more 'entrepreneurial' has become an implicit – and sometimes explicit – policy goal.

Celebrating research excellence

I received the invitation by email:

> The Vice Chancellor Professor Stuart McCutcheon, Deputy Vice Chancellor Distinguished Professor Jane Harding and CEO of UniServices Ltd. Dr Andy Shenk request the pleasure of your company at 'Celebrating Research Excellence', a reception to celebrate the University's continued excellence in research and the success of staff who were granted research awards and contracts in 2013.

As the invitation extended to 'members of your research team', I arrive at the venue with a colleague and research collaborator from the School of

Environment in the Science Faculty. It is a warm evening in May, and a vast marquee straddles the lawns of Old Government House, the historic colonial mansion that was once home to New Zealand's Parliament and the residence of former viceregals. Inside, the marquee is decked out with soft fairy lights and stalls with posters and computers displaying some of the highlights of the University of Auckland's scientific research. Some 350 guests are assembled, milling around in small groups chatting, wine glasses in hand, as a team of waiters serves canapés. The Vice Chancellor moves deftly among them with his guest of honour, the Rt. Hon Stephen Joyce, Minister for Business, Science and Innovation. It is well known that there is no love lost between these two men, but McCutcheon remains courteous and charming as he invites the minister to the podium to present the first and most prestigious of the evening awards: the University of Auckland's Vice Chancellor's Medal for Excellence in Research Commercialization. This recently invented trophy – a bronze medallion depicting two albatrosses in flight – was specifically designed for the University to 'reward and recognise the impact of sponsored research and commercialisation activities and their contribution beyond academia' and is awarded to 'researchers who have demonstrated high impact and excellence in sponsored research and research application over a number of years' (UniServices 2014).

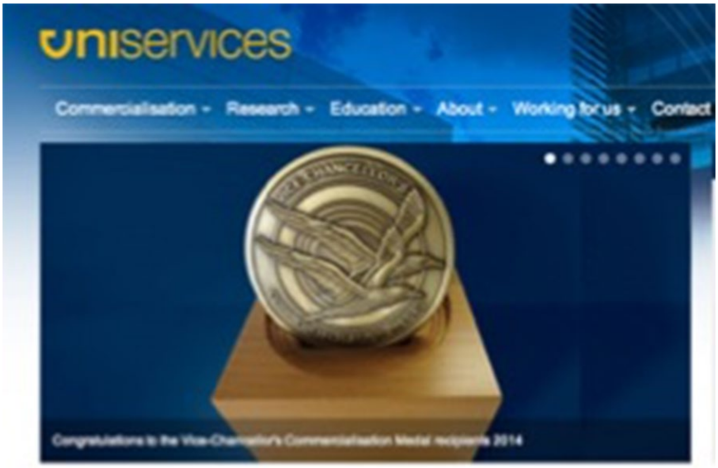

Figure 1. The University of Auckland's Vice Chancellor's Medal for Excellence in Research Commercialization. Copyright: The University of Auckland.

The winners of the Vice Chancellor's Medal for Excellence in Research Commercialization are announced in what seems to be ascending order of impact and return on investment. The first winner to be announced is Professor David Williams in the Chemistry Department. As the burst of applause subsides, the minister tells the assembled audience that Professor Williams is 'a passionate proponent of the commercialization of research' with a 'long and distinguished career in the translation of science into products'. That translation work includes no less than three successful 'start-up companies' and the plaudit of being 'named inventor on forty-eight granted and pending patents'. Professor Williams' research, the Minister declares, has generated over NZD $9 million. For a country the size of New Zealand, with its limited research-funding base, this is a considerable amount. But there is more to come. Professor Williams' other outstanding achievements include sitting on several 'Return on Science Investment Committees', providing investment advice and training at various workshops and 'bootcamps' run by Auckland UniServices Ltd (the commercialisation arm of the University), and setting up numerous 'commercialization incubator groups' around the country. As a relative newcomer to this world of business-speak, I found these metaphors of 'bootcamps' and 'incubators' intriguing. An incubator, as conventional understand, is an enclosed apparatus in which premature or unusually small babies are placed and which provides a controlled and protective environment for their care, while commercialisation is the process of managing or running something principally for financial gain. This collocation and the image of 'growing a commercial product' struck me as bizarre.

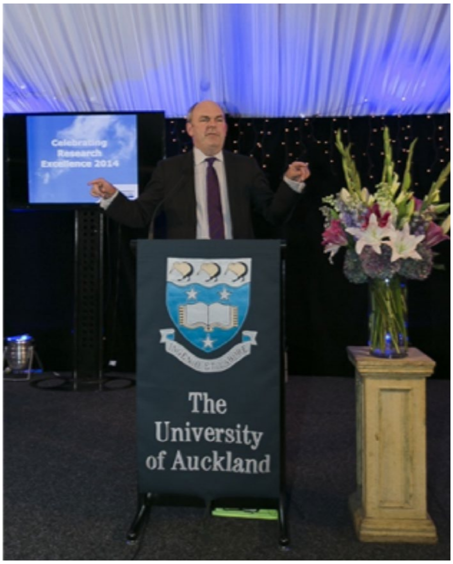

Figure 2. Minister Steven Joyce announcing the winners of the Vice Chancellors Medal for Research Commercialisation in 2014. Copyright, The University of Auckland

Next up is Distinguished Professor of Education Viviane Robinson whose research on evidence-based approaches to leadership development, we are informed, has ‘influenced government agencies around the world’. Her consultancy work, undertaken through Auckland UniServices, has generated more than NZD $16,060,000 of revenue since 1990. In addition to revenue earned from projects and consultancies in Australia, London, Norway, Singapore and the United States, Professor Robinson has also established a ‘passive revenue stream’ through creating and licensing her Open To Learning™ resource packs to various educational organisations. I have to Google *Investopia* to discover what ‘passive revenue stream’ means: the image of flowing waters of money is corroborated by the first definition I find: ‘Earnings an individual derives from a rental property, limited partnership or other enterprise in which he or she is not materially involved’.

The third recipient is Colin Green, professor of ophthalmology and co-founder of CoDa Therapeutics, a biopharmaceutical company that focuses on the development and commercialisation of therapeutics for wound care and tissue repair. CoDa Therapeutics, we are told, has raised over $90M in capital from an international syndicate of venture capital investors from New Zealand, Australia, the United States and Russia. The company employs sixteen people including several in New Zealand. Professor Green’s research, we learn, has led to over one hundred patents in wound healing and cell reprogramming.

The rest of the evening is devoted to celebrating the other, lesser awards. Most of these involve academics in the Faculties of Health and Medicine and Science and Engineering. Only three of the awards celebrate excellence in the Arts: a historian (Lynda Bryder) for her work on New Zealand women; a PhD student in Education for a thesis on story telling; and the Vice Chancellor’s Prize for Best Doctoral Thesis Award, a Theology thesis titled *Jesus the Bum: An Ideological Reading of Homelessness in the Gospel of Matthew* (Myles 2013). For some reason, this title is a source of great amusement to both the announcer and the audience and provokes a ripple of laughter. What would ‘Jesus the bum’ have made of this celebration of Mammon, I wondered.

A few weeks later, another event was held in Auckland, this time to celebrate research commercialisation at a national level in both universities and Crown research institutes. Invented in 2013, the purpose of the annual KiwiNet Research Commercialisation Award is to celebrate success and bring together ‘the people and technologies changing the research commercialisation landscape in New Zealand’ – or as one of the judges described it, 'New Zealand companies [that] will really move the needle on our export earnings'. In the eight years since KiwiNet created this ceremony, the idea that academic research should be oriented towards commercialisation has become an even more prominent and entrenched feature of that research landscape. Universities are now routinely exhorted to work more closely with business and commerce to develop new products and services that can benefit New Zealand (KiwiNet 2021). As the next vignette by Nick Lewis also shows, external consultants are now frequently brought in to advise universities on how to 'overcome' cultural barriers that impede the commercialisation of their research (KiwiNet 2021: 4–6).

Conclusion: Commercialisation, entrepreneurship, and the new hierarchy of value in academia

In 2017 I attended another Auckland University Research Excellence Award ceremony. The format was similar to that of 2014; even the audience looked the same, although a new minister for higher education was there to present the prizes. Once again, the Research Commercialisation Medal was positioned as the most prestigious and important prize. And once again, researchers who had successfully worked with businesses received the highest accolades, not so much for the intellectual or international merits of their work as for the dollars their work had produced and the number of patents, licences and spin-offs it had generated. Such outputs were typically framed as both a moral imperative and a patriotic contribution to the New Zealand economy.

This vignette highlights a number of processes that are reshaping the way that university research is valued and rewarded and what kinds of knowledge 'count'. These shifts are slowly but steadily changing the meaning and mission of the public university in New Zealand, transforming universities into engines for national economic innovation and growth. It also highlights the new kinds of academic subject that this commercialisation research landscape requires. The successful 'entrepreneurial academic' imagined in these 'celebrating research excellence' events is a loyal university employee whose 'translational research' leads to profitable ventures and commercialisable outputs that generate new revenue streams for their institutions and, of course, prestige for their vice chancellors and senior leadership teams. Brigitte Gorm Hansen's account of university 'project barons' who now increasingly dominate scientific research neatly captures the key elements of this new subjectivity. Writing about Danish universities, she notes how these 'barons of science', through their command of big research grants and the infrastructure that this sustains, have become more powerful than university heads of department or deans who, in practice, cannot make a move without consulting them first. 'They act freely outside the formal management structures of the university and are capable of going beyond their jurisdiction. They operate by staying close to the scene of research and gain their influence by a remarkable ability to attract external funding' (Gorm Hansen 2017: 122), and by constantly winning more money and more prestige.

Some twenty-five years ago Bill Readings gave a prescient account of the effects of commercialisation on the university and the production of knowledge. He argued that the traditional liberal idea of the university based on the autonomy of knowledge as an end in itself was fast being supplanted by a new commercial rationality. We had entered what he termed a post-historical phase:

> The mission of liberal education is lost. There is no longer a subject that can incarnate this principle.…The adventure of a liberal education no longer has a hero. Neither a student to embark upon it, nor a professor hero as its end. (Readings 1996: 1)

With the reorganisation of universities into business corporations, Readings suggested that the administrator rather than the professor had become the central hero and protagonist in the story of the university. I suggest that Reading's analysis needs updating. What my vignette shows is that another protagonist in the story of the university is emerging, one epitomised by the academic entrepreneurs lionised at these annual prize-giving ceremonies and other ritual events. These figures have become the new heroes of the university story; the 'rock-star' academics who university leaders now portray as the ideal or model of academic success. While the translation of their work as intellectual property generates reputational capital and enriches the institution and the country, it also embodies a new kind of morality and projects a new hierarchy of value based on the virtues of entrepreneurship, innovation and commercialisation. However, these ritual acts of celebration and the measuring of research excellence in terms of commercial impact and financial return also invite reflection on university futures and epistemology more generally. If commercialisation and market making are now seen (by senior management teams if not by academics) as the highest goal of academic research, what remains of the university's mission to serve the public interest and to contribute to society through the pursuit of education, learning and independent research? And where does the idea of 'public good' feature in this increasingly market-driven vision of commercialisation that is reshaping university research policy and practice? Academic entrepreneurialism has acquired a powerful moral kudos in the neoliberalised university, and some vice chancellors now even speak of wealth creation as the new 'public good' (Shore and MacLauchlan 2012: 283). However, attempts to privatise the public university by promoting 'third mission' activities as the key to its future survival is a problematic vision and one that few academics share.

Locking in markets: fashioning compliant corporate subjects in the public university (Vignette 6)

Nick Lewis

Elsewhere in the University of Auckland, more mundane initiatives have been launched to create the subjects of the corporate university and the process of market-making that lie behind it. On 12 April 2016, I received an email from a colleague with the following formal invitation embedded in it: 'As part of my self-development, I have engaged Human Synergistics (NZ) Ltd to gather feedback about how others see me. I would like to invite you to provide that feedback. In the coming days you will receive an email from Human Synergistics which will include a link that will take you to a survey'. The link took me to a description of The Life Styles Inventory™, a psychometric tool that uses a bank of questions to compare the ways individuals think about themselves with the ways they are seen by others (Human Synergistics 2017a). The tool is designed to 'identify individual thinking and behavioural styles' and to generate a report that will help the individual to 'discover new ways of thinking and behaving and achieve their goals and improve their interpersonal relationships'. Human Synergistics claim to have 'helped millions of people to understand and change the way they think and behave'.

As I read this material, I received a knock at the door from my colleague to explain the invitation more fully. His approach followed the Staff Satisfaction Survey 2015 conducted by Willis Towers Watson, another set of global consultants claiming expertise grounded in international experience and reputation. These surveys are an important technology in the model of corporate governance adopted by my university. They provide information for metrics that operationalise key performance indicators (KPIs) for evaluating executive performance and various risk management tools in an organisation where functional relationships between input, output and quality are uncertain. Willis Towers Watson promise that analysis of their surveys will help clients 'turn risk into a path for growth by designing and delivering solutions…that cultivate talent, and expand the power of capital to protect and strengthen institutions and individuals' (Willis Towers Watson 2017).

In 2015, the multi-disciplinary School of Environment (SoE) where I work was identified as having levels of dissatisfaction above the Science Faculty average. This ought not to have been a surprise to the Faculty, the Human Resources department or the Vice Chancellor's Office. Not only does SoE include an atypical cluster of human geographers attuned to critique social change, but it had for over 15 years been subjected to a series of disaffecting mergers and physical relocations. It had been asked to assemble a diverse range of academics from geophysicists to cultural geographers into a cohesive group with shared practices and a meaningful identity. This hotspot of discontent triggered risk management alerts and attracted the attention of the university's Human Resources department (HR), which commissioned Human Synergistics (HS) to run an organisational culture change programme to address levels of dissatisfaction.

The culture initiative

Named in School documents as The Culture Initiative, this programme took place over a period of 10 months from April 2016 to February 2017. The Life Styles Inventory were the first step and were delivered to 'organisational leaders': The School Director, Heads of Disciplinary areas, and the current chairs of the School's academic, research and postgraduate committees. The process involved the surveys (three for each 'leader'), plus analysis and one-on-one meetings between leaders and HS representatives. At least two of these leaders claimed to me to have protested that in applying the model, HS failed to understand how universities worked or to grasp the fact that the source of the dissatisfaction lay beyond SoE and in the central organs of the university. However, it became clear that HR and HS saw the university as just another corporate organisation. To the extent that these experts acknowledged difference, it was something to be overcome.

As analogues for middle managers in a corporate organisational structure, the identified SoE leaders were held responsible for the poor satisfaction levels, either as having created the objects of staff discontent or by failing to manage it out of existence. Regardless of whether dissatisfaction was generated by their own performance, it was their job to implement policies from above, manage expectations, create new identities post-merger, quash dissatisfaction more generally, and promote school and university level identities and allegiances that would replace disciplinary academic cultures. For HS this is a question of creating and managing 'organisational culture', and academic leaders need to be taught to perform their role. The corporate template was to be imposed and normalised. Resistance was dismissed as a quaint romanticism and yet another example of the failure of academics to recognise the need to change and its inscription on the wall.

This was, however, only the beginning of the culture change initiative. Human Resources had bought a second product from HS's box of culture-making and management tricks, the 'Organisational Culture Inventory' (OCI) (Cooke and Szumal 2000). The OCI is a survey and analysis package that HS claims 'measures key cultural outcomes (role clarity, service quality, commitment and satisfaction), and identifies statistical relationships between the various elements of culture and these outcomes' (Human Synergistics 2017b). In late September, HS presented the OCI at a staff meeting. The presentation began with a brief lecture about the meaning, nature and importance of culture, defined by HS in the organisational context as 'the shared norms and expectations that govern the way people approach their work and interact with each other'.

Voodoo metrics and a culture of casual conceptualisation

This cavalier approach to a central concept of social theory represented for some staff members an assault on the substantive content of their work and its value. The repeated references to students as consumers or clients, and the non-scholarly approach to qualitative research methodology raised further and more widespread concerns. The failure to address any of these questions represented an affront to the values and purpose of the public university, so too did the failure to recognise the widespread critique of the use of 'culture' as a discourse of organisational design (see Power et al. 2013). Instead, a corporate representative lectured experts in the field about their own concepts and research techniques as a prelude to appropriating the views of staff for commercial gain and the interests of employers. In a further contravention of the University's own research ethics guidelines, staff were pressured to participate in the OCI survey.

The survey asks questions such as 'to what extent are people expected to be' a 'nice guy', 'not rock the boat', remain 'aloof from the situation', 'stay on people's good side', 'go along with orders' and so on. The questions are designed to elicit answers that allow the analysts to build an organisational 'cultural profile' based on dominant forms of interpersonal behavioural norms. This profile can then be represented on a circumplex, an analytical tool for 'conceptualizing, organizing, and assessing interpersonal behaviour, traits, and motives' (Wiggins 2003). There exist multiple trademarked versions of the circumplex.[1]

Its underlying questionnaires and algorithms are argued to have become the most popular model for conceptualising and representing interpersonal dispositions in organisational culture (Locke 2006). The apparatus is argued to distil individual interpersonal behavioural dispositions into a representation of an organisational culture. Bound up with new discourses of leadership and organisational culture, its use has proliferated across organisations in different sectors and countries, generating large data sets, which advocates argue make their results reliable and offer a platform for effective benchmarking. The large number of studies has facilitated analyses of the gap between actual and desired cultures.

The HS Circumplex represents twelve behavioural dispositions on six oppositional axes arranged into two central axes (security needs to satisfaction needs and people orientation to task orientation) each of which encompasses four of the twelve 'dispositions'. On top of these various axes are laid three interpersonal behavioural styles, which cut partially across the four 'needs' and define spheres that encompass four 'dispositions' each. The result is an elegant representation of organisational culture, albeit based on problematic data – from both sociological perspectives and in terms of quantitative social psychology (Fabrigar et al. 1997). The HS OCI represented our School as an unremarkable and relatively evenly distributed mix of contradictory but relatively weak behavioural dispositions to collaborative, constructive, individualistic and aggressive forms of behaviour. Despite, or perhaps because of, what colleagues who are experienced in qualitative research considered to be flaws in the survey instrument, its distribution, and the analysis performed on results, this told us little that we did not already know. It presented an innocuous description and impoverished analysis of our practice that failed to define a distinctive school culture in any meaningful way. Nor, on the face of it, did the circumplex offer either diagnosis of, or therapy for, staff dissatisfaction.

Nonetheless, the results performed politically as a 'reliable' scientifically derived and numerically grounded representation, especially when read through the second part to the OCI, the gap analysis. The gap analysis involves producing a second circumplex of a preferred organisational culture, which is held to represent an 'ideal culture profile' for the organisation. This ideal culture was composed from a survey of a sub-sample of staff. The 'ideal' profile provides a benchmark against which the actual organisational culture is compared, and the 'gap analysis' is completed to 'focus improvement efforts where they can make the most difference'.

In the case of our school, this second circumplex, derived from a survey of twelve staff selected in an undisclosed manner, represented the ideal culture for the school as dominated by self-actualising and humanistic behaviours. The former involves 'behaviours' that emphasise quality and personal integrity, while the latter involve developing others and resolving conflicts constructively. Together with cooperation, achievement focus and taking on challenges, they constitute 'constructive styles' of behaviour characterised by 'interacting with others and approaching tasks in ways that will help them to meet their higher-order satisfaction needs' (Cooke 2017: no pagination). Constructive styles are said to 'encourage the attainment of organizational goals through people development; promote teamwork and synergy; and enhance individual, group, and organizational adaptability and effectiveness' (Human Synergistics 2017c).

Self-actualising and humanistic behaviours were then held up as the culture that we should seek to emulate. Accordingly, two facilitated workshops were run; the first to discuss the results and their implications for the School, and the second to derive consensual approaches to change cultures in the School. In small group sessions, staff were asked to imagine ways to eliminate the gap or shift cultural norms towards the ideal. Each group selected a preferred action, and the whole group then voted on what they thought to be the most effective response. As a final irony, for my colleagues, that response was to 'smile more' – a deeply human, pre-analytical response that evidenced the redundancy of the whole costly exercise, and one that in itself only provoked a desire to cry.

It is unclear exactly what any of the particular terms of the circumplex are supposed to mean in the context of a university. However, it is clear that its positive segments (constructive styles) are juxtaposed to its destructive segments (passive/defensive and aggressive/defensive styles) to produce a ‘gap’. The ‘gap’ defines a sphere of potentially corrective disciplinary intervention. Significantly, in comparing lived realities with ideals it also inevitably overstates the potential for correction in the form of enhanced individual performance and corporate efficiency, building in an unnecessary set of anxieties. There is a moral coding to the circumplex; team building, cooperation, self-actualisation and affiliation are good, while criticality, convention, tradition, independence and perfectionism are bad. The ideal academic in this model is to be a team player with their goals set by the university, and to be a-critical, non-disciplinary and without external commitment. Perfectionism in the pursuit of knowledge is passive aggressive. The content and meaning of knowledge and practice do not warrant a mention. Instead, a set of idealised organisational values for the ‘new spirits of capitalism’ (Boltanski and Chiapello 2005) were deployed to displace the academy as a model of practice and governance and re-subjectify academics as loyal and caring corporate workers. These values redefine the purpose of the public university, undermine disciplinary cultures, foster new loyalties, and secure new alliances among HR, external managerial consultants and the senior leadership of the new public university.

Arguably the values favoured by the circumplex are not without positive effects. The technologies inject an inclusionary impetus into corporate workplaces, and clearly register the increasing prominence of relational modes of work and skills of intermediation (Moss 2009; Powell 1990). They may also have a particular efficacy in the team-based projects of inventive (Thrift 2008) and cognitive capitalism (Vercellone 2007); while they also promise to destabilise negative disengagement and critique. However, they transfer status and power from independent academics to the managerial and relational workers who set the goals of the team, and in turn erode ethics of academic freedom. They ignore the specific qualities of public universities, where content-based knowledge is made and academics are trained to be curious and critical and obligated, according to New Zealand’s legislation, to put their responsibility to the public, democracy and truth before loyalty to their employer and if necessary to critique their institution.

Arguably then, the circumplex is not only voodoo metrics but has little place in a public university. As a science of the social, it is flawed, while as an art of governance, it is morally coded as a reflection of the contemporary knowledge corporation, which is in tension with the established purpose of the university. As a social practice in a public institution and as an investment of public money, the OCI invites a lacerating critique. Under the terms of New Zealand's Education Act 1989, which calls on universities to be critic and conscience of society, it demands one.

Synergistics and the making of markets

The vignette illustrates the reimagining, reframing and remaking of key spaces and subjects in the public university (see Larner and Le Heron 2005). These include the remaking of the department and discipline as an 'organisational unit' and 'team', with colleagues as team members, students as customers and collegial governance roles as middle-management leaders with responsibilities to instil corporate discipline and loyalty. These corporate subjects are creations of an HR imaginary in which the university is positioned as a corporation and the Vice Chancellor, his pro-VCs and Deans are reconstituted as its executives. The HR staff are the new experts in, and regulators of, the work practices and relations at the core of this corporate university. The circumplex is part of a wider apparatus of interlocked technologies of control used to re-discipline academics and support staff from being disciplinary subjects to becoming compliant, humanistic and self-actualising organisational team players – generic corporate professionals. Of course, in these neoliberal times, they are expected to discipline themselves into these corporate market subjects.

Public universities are however not like other organisations in law and purpose: students are not customers (in terms of the obligations of universities to the governments that fund them, as well as the commitments and power relations embedded in the pursuit of knowledge); the role of Vice Chancellor is very different to that of a company CEO; and knowledge and education are not standard products. There are certainly gains to be made from more inclusive work practices and ethics and a healthy dose of self-reflection and collective regard, but there is neither mandate nor evidentiary justification that the Circumplex is the best way to proceed. Rather, the project to impose transformative governmental technologies that deny the special qualities, purpose and social relations of universities is a calculated disciplinary act.

The vignette demonstrates just how entangled and pervasive the creation of market subjects, market practices and marketplaces have become in the public university. It is an account of reimagining and reorganising the public university as a corporation and brings techniques from corporate organisation to bear on it. It also highlights the way that the subjects and social relations of the public university are being redefined discursively in market terms (clients, customers, education as a product, team members and leaders, and so on) and conditioned by corporate culture. The vignette reveals some of the influence exerted on academic practice by HR and shows the mundane penetration of private capital into daily academic life; the consultants walk among us appropriating publicly funded surplus. The circumplex is a formatting agent and a performative part of a new economy that is actively and strategically displacing the established economy of the public university and its cultures.

Conclusion

Nick Lewis

The vignettes presented in this article examine how universities are becoming entangled in market practices and relations. They are illuminated by three key dynamics of market-making. First, external reforms and policy expectations are not something 'out-there' that is 'happening to' universities; rather, universities themselves are active agents in higher education transformations. Universities as organisations, as well as various actors within them, are positioning themselves within market relations as much as they are being positioned. Second, the rankings, performance management measures, commercialisation initiatives, public-private research partnerships, tools to professionalise academics, award ceremonies, guides to support student choice and other micro-processes identified are both a reflection of higher education transformation as well as constitutive of it. And third, the transformations of universities and their roles in society identified in the vignettes are emerging from a set of intertwined market-making practices: *imagining, framing*, *qualifying* and *locking in* (both by *instituting* new practices and *subjectifying* new subjects).

Significantly, the authors of the vignettes emphasise present market-making in terms of practices and as an active and open process rather than as a sequential, singular or orchestrated process. Even the imagineering of university futures by Bokor and Barber et al. does not prefigure a singular restructuring project. The different vignettes demonstrate how these practices occur at multiple sites and moments, from reimagining the university at a high order for policy audiences to new policy-led performance measurements and routinised micro-practices of administration, producing numbers, calculating rankings, awarding and rewarding staff and cultivating new subjects. Taken together, however, the vignettes make five broad points about market making.

First, market rationales have penetrated public universities in many different ways and in diverse spheres of university life. The vignettes highlight some of the ways market principles and practices are becoming registered in (and preformed through) the micro-practices of identifying qualities, rewarding performance, fostering collegiality and building individual careers. Second, the new market-making calculative technologies, expertise and experts brought to bear on public universities are performative. They are making markets in unanticipated ways as well as through the technical and governmental work expected of them. Third, market making is in this way deeply governmental – it fashions new objects, subjects and relations to be governed, revaluing qualities and creating new meanings, bringing to bear new technologies of decision making and establishing new institutions. Fourth, the diverse practices of market making elaborated in the vignettes are connected into (and by) corporate interests and action. Practices such as performance-based funding, research-funding programmes and employability funding also make up a new policy setting, which imposes material pressures on public universities and shapes their decision making. Policy and corporate interest are of course also linked tightly to the imagineering of Bokor and Barber et al. There is a political economy at play, with significant consequences for who controls what knowledge and its making, and for whom. And fifth, all this is blurring boundaries between public universities and wider social practices, entities and fields of social action. As a result, new relations are being established between universities and their publics; relations that increasingly entangled in markets.

The article makes an original contribution to debates about the economisation of universities by assembling accounts of the different sites and moments of market making in the contemporary public university. Its empirical focus on practice adds new dimensions to the political-economy critique of university transformation. Our examples show how *imagining, framing*, *qualifying* and *locking in* (*instituting* new practices and *subjectifying* new subjects) are key processes and sites of market making, and that these are not predetermined stages.

The article also makes possible the prospects of an engagement between critical and mainstream literatures, where many of the practices described in the vignettes are elaborated in less critical ways. Such an engagement might be focused on three considerations: continued reflection on the way organisational transformation in and of universities is linked to the broader processes of social change; future scenarios for the transformation of universities and knowledge production more generally in relation to the micro-practices of internal and external relations in public universities; and the significance of expertise and agency in making university futures. The vignettes direct us to ask what it might mean for the futures of public universities when they are being decided by calculative (or qualculative) experts, public relations and human relations consultants, and other relational workers who mediate the new market relations with students, communities and future research funders and format higher education and research markets. Each vignette points in one way or another to an easy answer: a future of more markets generated by a political economy in which states drive universities to become market actors, universities cut costs by reformatting their practices in market terms, and corporate actors mobilise new technologies and market subjectivities to create new products for reframed practices.

On the other hand, the vignettes also expose the challenges of formatting markets successfully, the incompleteness of markets in practice, and the failures in practice of efforts to reduce actual subjects and practices to market analogues. The market form in the public university has limitations and is still contested. Rankings fail to rank effectively, awards fail to capture research excellence, the circumplex fails to yield new subjects, and research assessment exercises in New Zealand and the UK chase ever-more intricate yet no less gameable measures of impact. Calculations of the values of student life depart from what students value in practice. Competing universities are eroding their points of difference and risk undermining the market, while university-based institutes of public policy research cannot provide what think tanks provide and think tank clients are frustrated that their university analogues cannot be trusted to deliver what they once did. As Çalışkan and Callon (2009) might put it, not all the subjects of university education and research have been pacified, not all objects have been disentangled from matters of concern, calculated, qualified and stabilised. Market makers are struggling to make the market, which is not yet accomplished. By critiquing the entrepreneurial-managerial-commercialised university in practice, the vignettes expose their contradictions and limitations and point to the need for alternative measures of success, models of management and professionalism, and diverse subjects for diverse twenty-first century universities. While the authors are haunted by a past that is often romanticised, the shadow of the public university highlights alternatives that might provide a valuable resource for alternative futurology.

The incompleteness of university markets and the work required to hold the contradictions at bay suggest that future universities might still be constructed in other ways. There has never been a single model of the university as a space for publicly supported critical thinking and discovery. Universities have been organised in different ways, which gives cause for some hope of reinventing different spaces. Susan Wright and colleagues (2011), for example, have written about the possibilities of cooperative universities based on the Mondragon model or the trust university (Boden et al. 2012). Sarah Amsler (2011) points to the solidarity gains from continuous resistance, and to models of the free university through which learning 'in movements' might democratise higher education (Amsler 2017). Barbara Grant (2019) has argued for a politics of a thousand tiny universities in which academics simply practice a different, ethical, human, scholarly university in the face of a technology of market and managerial control that has yet to reach fully into the core and mundane practices of academia. There are also the politics of collective organisation as markets bite and in making visible to university managers the realities of where their market competitive advantages lie – in scholarship and strong interpersonal relationships with students. None of these approaches confront predatory financial interests and for-profit providers directly but do allow for reimagining the university in COVID-19 times. They do so, however, from positions that are heavily under-resourced politically and financially compared to the likes of EY, KPMG and Pearson, who are actively moving to seize whatever advantage from COVID-19's disruptions and the pressures it is imposing on established models of university organisation.

Tatyana Bajenova is currently a Max Weber Postdoctoral Fellow at the Robert Schuman Centre for Advanced Studies at the European University Institute in Florence, Italy. Her contribution to this issue is based on the research she conducted at the Ecole Normale Supérieure de Lyon (France) in the framework of the ITN project 'Universities in the Knowledge Economy' (UNIKE) funded by FP7 – Marie Curie Actions. Her research focuses on the use of expertise in EU policymaking and the role of think tanks and universities in public and science diplomacy. Email: tatyana.bajenova@eui.eu

Nicolas Lewis is an economic geographer in the School of Environment at the University of Auckland. He has written on economisation and neoliberal governance in a wide range of contexts, including market making in universities. Email: n.lewis@auckland.ac.nz

Miguel Antonio Lim is a senior lecturer in Education and International Development at the University of Manchester. He is convenor of the International Research and Researchers Network at the Society for Research into Higher Education.
Email: miguelantonio.lim@manchester.ac.uk

Janja Komljenovic is a Senior Lecturer at Lancaster University, UK. Her research focuses on digital markets in higher education, new forms of value in EdTech, and how things are turned into assets.
Email: j.komljenovic@lancaster.ac.uk

Chris Muellerleile is a Senior Lecturer of Geography at Swansea University in Wales. His research focuses on socioeconomics of financial markets and processes of commodification and marketisation, including in higher education. Along with several colleagues he is a co-author of *Metrics That Matter*, which is forthcoming from Johns Hopkins University Press. Email: c.m.muellerleile@swansea.ac.uk

Susan Robertson is Professor of Sociology of Education and currently Head of the School of Education, Culture and Society at Monash University. She has written extensively on education and the culture of the new capitalism, including market-making. Susan was a co-leader of the UNIKE research programme from which many of the contributions in this special themed issue emerged.
Email: Susan.Robertson@monash.edu

Cris Shore is professor of Anthropology at Goldsmiths University of London and Research Director at the Helsinki Collegium of Advanced Studies. He has written extensively on the anthropology of policy and organisations, including the rise of ‘audit culture’ and market-making in universities. He was lead coordinator for the New Zealand team of the UNIKE research programme. Email: c.shore@gold.ac.uk

Note

1. The Human Synergistics model is available at https://www.hsnz.co.nz/about-us/the-circumplex.

References

Amsler, S. (2011), 'Beyond all reason: spaces of hope in the struggle for England's universities', *Representations* 116, no. 1: 62–87. https://doi.org/10.1525/rep.2011.116.1.62.

Amsler, S. (2017), 'Insane with courage': Free university experiments and the struggle for higher education in historical perspective. *Learning and Teaching* 10, no. 1: 5–23. https://doi.org/10.3167/latiss.2017.100102.

Bajenova, T. (2016), 'Think tanks and universities in the knowledge-based economy: Crossing, blurring and shifting boundaries', *New Zealand Journal of Research on Europe* 10, no. 1: 78–132.

Bajenova, T. (2018), 'The transnational field of European think tanks: Accumulating specific forms of capital to influence EU policy making', Doctoral thesis, École Normale Supérieure de Lyon.

Bajenova, T. (2019), 'Rescaling expertise in EU policymaking: think tanks and their reliance on symbolic, political and network capital', *Globalisation, Societies and Education* 17, no. 1: 61–77. https://doi.org/10.1080/14767724.2018.1540926.

Bandola-Gill, J., S. Grek, and M. Ronzani (2021), 'Beyond winners and losers: ranking visualizations as alignment devices in global public policy', *Worlds of Rankings* 74: 27–52. https://doi.org/10.1108/S0733-558X202174.

Barber, M., K. Donnelly and S. Rizvi (2013), *An Avalanche is Coming. Higher Education and the Revolution Ahead* (London: Institute for Public Policy Research).

Baskaran, A. and R. Boden (2007), 'Prometheus bound: accounting and the creation of the new science paradigm', *International Studies of Management & Organization* 37, no. 1: 9–26. https://doi.org/10.2753/IMO0020-8825370101.

Baty, P. (2010), 'Ranking confession', *Inside Higher Ed*, 15 March. https://www.insidehighered.com/views/2010/03/15/ranking-confession.

Beckert, J. (2009), 'The social order of markets', *Theory and Society* 38, no. 3: 245–269. https://doi.org/10.1007/s11186-008-9082-0.

Berndt, C. and M. Boeckler (2011), 'Geographies of markets: Materials, morals and monsters in motion', *Progress in Human Geography* 35, no. 4: 559–567. https://doi.org/10.1177/0309132510384498.

Berndt, C., J. Peck and N. Rantisi (2020), *Market/place: Exploring Spaces of Exchange* (Newcastle Upon Tyne: Agenda Publishing).

Boden, R. and M. Nedeva (2010), 'Employing discourse: Universities and graduate 'employability', *Journal of Education Policy* 25, no. 1: 37–54. https://doi.org/10.1080/02680930903349489.

Boden, R., P. Ciancanelli and S. Wright (2012), 'Trust universities? Governance for post-capitalist futures', *Journal of Co-operative Studies* 45, no. 2: 16–24.

Bok, D. (2009), *Universities in the Marketplace: The Commercialization of Higher Education* (Princeton, NJ: Princeton University Press).

Bokor, J. (2012), *University of the Future: A Thousand Year Old Industry on the Cusp of Profound Change* (Sydney: Ernst and Young), https://web.archive.org/web/20121119092916/http://www.ey.com/Publication/vwLUAssets/University_of_the_future/%24FILE/University_of_the_future_2012.pdf.

Boltanski, L. and E. Chiapello (2005), *The New Spirit of Capitalism* (London: Verso).

Bornmann, L. (2013), 'The problem of citation impact assessments for recent publication years in institutional evaluations', *Journal of Informetrics* 7, no. 3: 722–729. https://doi.org/10.1016/j.joi.2013.05.002.

Boucher, S. (2004), 'Europe and its think tanks: a promise to be fulfilled', *Studies and Research* no. 35, http://www.thinktankdirectory.org/downloads/Boucher_2006_Europe-and-its-Think-Tanks.pdf (accessed 22 December 2016).

Çalışkan, K. and M. Callon (2009), 'Economization, part 1: Shifting attention from the economy towards processes of economization', *Economy and Society* 38, no. 3: 369–398. https://doi.org/10.1080/03085140903020580.

Callon, M. (1998), 'Introduction: the embeddedness of economic markets in Economics', in M. Callon (ed), *The Laws of the Market* (Oxford: Blackwell Publishers), 1–57.

Callon, M. and J. Law (2005), 'On qualculation, agency, and otherness', *Environment and Planning D: Society and Space* 23, no. 5: 717–733. https://doi.org/10.1068/d343t.

Callon, M., C. Méadel, and V. Rabeharisoa (2002), 'The economy of qualities', *Economy and Society* 31, no. 2: 194–217. https://doi.org/10.1080/03085140220123126.

Carasso, H. (2014), 'Reassuringly expensive? The impact of market forces on England's undergraduate provision', in H. Ertl and C. Dupuy (eds), *Students, Markets and Social Justice: Higher Education Fee and Student Support Policies in Western Europe and Beyond* (Oxford: Symposium Books), 21–45.

CEPS (2016a), 'CEPS Academy', https://www.ceps.eu/ceps-academy (accessed 22 December 2016).

CEPS (2016b), 'IPEPS Flyer', https://www.ceps.eu/sites/default/files/IPEPS-flyer.pdf (accessed 22 December 2016).

Chubin, D. E. and S. D. Moitra (1975), 'Content analysis of references: Adjunct or alternative to citation counting?', *Social Studies of Science* 5, no. 4: 423–441. https://doi.org/10.1177/030631277500500403.

Cooke, R. (2017), *The Life Styles Inventory™: A Brief Introduction. Part I—Data, Words, Causes, and Effects*, https://www.humansynergistics.com/resources/content/2016/12/07/the-life-styles-inventory-a-brief-introduction-part-i-data-words-causes-and-effects (accessed 6 September 2022).

Cooke, R. and J. Szumal (2000), 'Using the organizational culture inventory to understand the operating cultures of organizations', in N. M. Ashkanasy, C. P. M. Wilderom and M. F. Peterson (eds), *Handbook of Organizational Culture and Climate* 4 (Thousand Oaks: Sage), 147–162.

Desrosières, A. and C. Naish (2002), *The Politics of Large Numbers: A History of Statistical Reasoning* (Cambridge, Mass.: Harvard University Press).

Easterling, K. (2014), *Extrastatecraft: The Power of Infrastructure Space* (London: Verso).

Egmont Institute (2016), 'Education & Training', https://www.egmontinstitute.be/education-training-programme (accessed 22 December 2016).

Espeland, W.N. and M. L. Stevens (2008), 'A sociology of quantification', *European Journal of Sociolog*y 49, no. 3: 401–436. https://doi.org/10.1017/S0003975609000150.

Espeland, W.N. and M. Sauder (2016), *Engines of Anxiety* (New York: Russell Sage Foundation).

EUI (2016a), 'About the EUI', http://www.eui.eu/About/Index.aspx / (accessed 22 December 2016).

EUI (2016b), 'Policy Dialogues', http://www.eui.eu/DepartmentsAndCentres/RobertSchumanCentre/PolicyDialogue/Index.aspx (accessed 22 December 2016).

European Commission (2017), 'Jean Monnet', https://wayback.archive-it.org/12090/20210123012755mp_/https://eacea.ec.europa.eu/erasmus-plus/actions/jean-monnet_en (accessed 20 April 2017).

European Commission (2018) *COM(2018) 435 Final: Proposal Establishing Horizon Europe – the Framework Programme for Research and Innovation, Laying Down Its Rules for Participation and Dissemination* (European Commission: Brussels).

European Parliament (2016), 'Partners', http://www.europarl.europa.eu/thinktank/en/partners.html (accessed 22 December 2016).

Fabrigar, L., S. Visser and M. Browne (1997), 'Conceptual and methodological issues in testing the circumplex structure of data in personality and social psychology', *Personality and Social Psychology Review* 1, no. 3: 184–203. https://doi.org/10.1207/s15327957pspr0103_1.

Fligstein, N. and R. Calder (2015), 'Architecture of markets', in R. Scott and S. Kosslyn (eds), *Emerging Trends in the Social and Behavioral Sciences: An Interdisciplinary, Searchable, and Linkable Resource* (Hoboken, NJ: John Wiley), 1–14.

Gorm Hansen, B. (2017), 'Science/industry collaboration: Bugs, project barons and managing symbiosis', in S. Wright and C. Shore (eds), *Death of the Public University?: Uncertain Futures for Higher Education in the Knowledge Economy* (Oxford: Berghahn), 117–137.

Grant, B. (2019), '1. The future is now: A thousand tiny universities', *Philosophy and Theory in Higher Education* 1, no. 3: 9–28. https://doi.org/10.3726/ptihe.2019.03.02.

Hacking, I. (1990), *The Taming of Chance* (Cambridge: Cambridge University Press).

Hazelkorn, E. (2007), 'How do rankings impact on higher education?', *OECD Institutional Management in Higher Education*, December: 1–2.

Holford, J., S. Hodge, M. Milana, R. Waller and S. Webb (2018), 'University renewal: "The times they are a-changing"'? *International Journal of Lifelong Education* 37, no. 2: 147–150. https://doi.org/10.1080/02601370.2018.1467669.

Human Synergistics (2017a), 'Life Styles Inventory™', http://www.hsnz.co.nz/change-solutions/change-solutions-for-individuals/diagnostic-tools-for-individuals/life-styles-inventory (accessed 28 December 2017).

Human Synergistics (2017b), 'Organizational Culture Inventory', https://www.humansynergistics.com/change-solutions/change-solutions-for-organizations/assessments-for-organizations/organization-culture-inventory (accessed 28 December 2017).

Human Synergistics (2017c), 'The Circumplex – Our Measurement Model', http://www.hsnz.co.nz/about-us/the-circumplex (accessed 28 December 2017).

Hurl, C., and A. Vogelpohl (2021), 'Introduction: The rise of professional service firms as public policy actors', in C. Hurl and A. Vogelpohl (eds), *Professional Service Firms and Politics in a Global Era: Public Policy, Private Expertise* (Cham, Switzerland: Palgrave Macmillan), 1–25.

IEP (2016), 'Training', http://iep-berlin.de/en/training/ (accessed 22 December 2016).

Jackson, D. J. (2011), 'What is an innovation ecosystem?', https://erc-assoc.org/sites/default/files/download-files/DJackson_What-is-an-Innovation-Ecosystem.pdf (accessed 6 September 2022).

Jessop, B. and N.-L. Sum (2014), 'A cultural political economy approach to competitiveness, the knowledge-based economy, and higher education', lecture at the University of Bristol, 24 February.

Kelstrup, J. D. (2016), *The Politics of Think Tanks in Europe* (London: Routledge).

KiwiNet (2021), *New Zealand Research Commercialisation Practice in Real Life* (Auckland: KiwiNet and BioPacfic Partners).

Komljenovic, J. and S. L. Robertson (2016), 'The dynamics of "market-making" in higher education, *Journal of Education Policy* 31, no. 5: 622–636. https://doi.org/10.1080/02680939.2016.1157732.

Kurunmäki, L., A. Mennicken and P. Miller (2016), 'Quantifying, economising, and marketising: Democratising the social sphere?', *Sociologie du Travail* 58, no. 4: 390–402. https://doi.org/10.4000/sdt.1210.

Larner, W. and R. Le Heron (2005), 'Neo-liberalizing spaces and subjectivities: Reinventing New Zealand universities', *Organization* 12, no. 6: 843–862. https://doi.org/10.1177/1350508405057473.

Latour, B. (1987), *Science in Action: How to Follow Scientists and Engineers Through Society* (Cambridge, MA: Harvard University Press).

Lewis, D. (2010), 'Encountering hybridity: Lessons from individual experiences', in D. Billis (ed), *Hybrid Organizations and the Third Sector: Challenges for Practice, Theory and Policy* (Basingstoke: Palgrave Macmillan), 219–239.

Lim, M. A. (2017), 'The building of weak expertise: The work of global university rankers', *Higher Education* 75, no. 3: 415–430. https://doi.org/10.1007/s10734-017-0147-8.

Lim, M. A. (2021), 'The business of university rankings: The case of the Times Higher Education', in E. Hazelkorn and G. Mihut (eds), *Research Handbook on University Rankings: History, Methodology, Influence and Impact* (Cheltenham: Edward Elgar Publishing Ltd), 444–453.

Locke, K. (2006), 'Interpersonal circumplex measures', in S. Strack (ed.), *Differentiating Normal and Abnormal Personality*, 2nd ed. (New York: Springer), 383–400.

LSE (2014), 'European Institute: LSE European Institute ranked top in the UK for Area Studies', http://www.lse.ac.uk/researchAndExpertise/REF2014/European-Institute.aspx/ (accessed 22 December 2016).

Mann, G. (2018), 'Equation and adequation: The world traced by the Phillips Curve', *Antipode* 50, no. 1: 184–211. https://doi.org/10.1111/anti.12321.

McGettigan, A. (2013), *The Great University Gamble: Money, Markets and the Future of Higher Education* (London: Pluto Press).

Medvetz, T. (2012), *Think Tanks in America* (Chicago: University of Chicago Press).

Middlehurst, R. and P. Teixeira (2012), 'Governance within the EHEA: Dynamic trends, common challenges, and national particularities', in A. Curaj, P. Scott, L. Vlasceanu and L. Wilson (eds), *European Higher Education at the Crossroads: Between the Bologna Process and National Reforms* (Dordrecht: Springer Netherlands), 527–551.

Misztal, B. A. (2012), 'Public intellectuals and think tanks: A free market in ideas? *International Journal of Politics, Culture and Society* 25: 127–141. https://doi.org/10.1007/s10767-012-9126-3.

Mitchell, T. (2002), *Rule of Experts: Egypt, Techno-Politics, Modernity* (Berkeley: University of California Press).

Moss, T. (2009), 'Intermediaries and the governance of sociotechnical networks in transition', *Environment and Planning A* 41, no. 6: 1480–1495. https://doi.org/10.1068/a4116.

Muellerleile, C. (2013), 'Turning financial markets inside out: Polanyi, performativity and disembeddedness', *Environment and Planning* A 45, no, 7:1625–1642. https://doi.org/10.1068/a45610.

Muellerleile, C. (2017), 'Open Access panacea: Scarcity, abundance, and enclosure in the new economy of academic knowledge production', in D. Tyfield, R. Lave, S. Randalls and C. Thorpe (eds), *The Routledge Handbook of the Political Economy of Science* (London: Routledge), 132–143.

Muellerleile, C. and S. Robertson (2018), 'Digital Weberianism: Bureaucracy, information, and the techno-rationality of neoliberal capitalism, *Indiana Journal of Global Legal Studies* 25, no. 1: 187–216. https://doi.org/10.2979/indjglolegstu.25.1.0187.

Myles, R. (2013), *Jesus the Bum: An Ideological Reading of Homelessness in the Gospel of Matthew*, Doctoral dissertation, ResearchSpace@ Auckland.

Newfield, C. (2008), *Unmaking the Public University: The Forty Year Assault on the Middle Class* (Cambridge, MA: Harvard University Press).

Newfield, C. (2019), 'Unbundling the knowledge economy', *Globalisation, Societies and Education* 17, no. 1: 92–100. https://doi.org/10.1080/14767724.2019.1602353.

Pestre, D. (2003), 'Regimes of knowledge production in society: Towards a more political and social reading', *Minerva* 41: 245–261. https://doi.org/10.1023/A:1025553311412.

Plehwe, D. (2011), 'Who cares about excellence? Social sciences under think tank pressure', in T. Halvorsen and A. Nyhagen (eds), *Academic Identities—Academic Challenges? American and European Experience of the Transformation of Higher Education and* Research (Newcastle: Cambridge Scholars Publishing), 159–194.

Polanyi, K. (2001), *The Great Transformation* (Boston, MA: Beacon Press).

Porter, T. M. (1996), *Trust In Numbers: The Pursuit of Objectivity in Science and Public Life* (Princeton, NJ: Princeton University Press).

Powell, W. (1990), 'Neither market nor hierarchy: Network forms of organization', in M. Godwyn and J. Gittel (eds.), *Sociology of Organisations: Structures and Relationships* (London: Sage), 30–40.

Power, M. (2016), 'The impact agenda', presentation at Academic Europea and Hercules Foundation Conference, *University Governance: Impeding or Facilitating Creativity*, Hanover, 29–30 September.

Power, M., S. Ashby and T. Palermo (2013), *Risk Culture in Financial Organisations: A Research Report* (London: CARR-Analysis of Risk and Regulation).

PRGS (Pardee RAND Graduate School) (2016), 'About the Pardee RAND Graduate School', http://www.prgs.edu/about.html (accessed 22 December 2016).

Prince, R., M. Henry, C. Morris, A. Gallagher and S. FitzHerbert (eds) (2021), *Markets in Their Place: Context, Culture, Finance* (Abingdon, VA: Routledge).

Readings, B. (1996), *The University in Ruins* (Cambridge, MA: Harvard University Press).

Redden, G. (2019), *Questioning Performance Measurement* (Thousand Oaks, CA: Sage).

Robertson, S. (2017), 'Making education markets through global trade agreements', *Globalisation, Societies and Education* 15, no. 3: 296–307. https://doi.org/10.17863/CAM.12553.

Robertson, S. and J. Komljenovic (2016), 'Unbundling the university and making higher education markets', in A. Verger, C. Lubienski and G. Steiner-Kamsi (eds), *The Global Education Industry* (London: Routledge), 211–227.

Robertson, S.L. and C. Muellerleile (2017), 'Universities, the risk industry and capitalism', in R. Normand and J.-L. Derouet (eds), *A European Politics of Education: Perspectives from Sociology, Policy Studies and Politics* (London: Routledge), 122–139.

Salmi, J. (2009), *Challenge of Establishing World-Class Universities* (New York: World Bank Publications).

Sanderson, I. (2002), 'Evaluation, policy learning and evidence-based policy making', *Public Administration* 80. no. 1: 1–22. https://doi.org/10.1111/1467-9299.00292.

Shin, J. C., R. K. Toutkoushian and U. Teichler (eds) (2011), *University Rankings: Theoretical Basis, Methodology and Impacts on Global Higher Education (Vol. 3).* (Dordrecht: Springer Science & Business Media).

Shore, C. (2020), 'Symbiotic or parasitic? Universities, academic capitalism and the global knowledge economy', in E. Heffernan, F. Murphy and J. Skinner (eds), *Collaborations: Anthropology in a Neoliberal Age* (New York: Bloomsbury), 23–44.

Shore, C. and L. MacLauchlan (2012), '"Third mission" activities, commercialisation and academic entrepreneurs', *Social Anthropology* 20, no. 3: 267–286. https://doi.org/10.1111/j.1469-8676.2012.00207.x.

Stone, D. (2013), *Knowledge Actors and Transnational Governance. Private-Public Policy Nexus in the Global Agora* (Houndmills: Palgrave Macmillan).

Thrift, N. (2008), 'A perfect innovation engine: The rise of the talent world', *Distinktion: Scandinavian Journal of Social Theory* 9, no. 1: 115–140. https://doi.org/10.1080/1600910X.2008.9672959.

Ullrich, H. (2004), 'European Union think tanks: generating ideas, analysis and debate', in: D. Stone and A. Denham (eds), *Think Tanks Traditions. Policy Research and the Policy of Ideas* (Manchester: Manchester University Press), 51–68.

UniServices (2014), 'Awarding Research Excellence', University of Auckland, http://www.uniservices.auckland.ac.nz/about/news/articletype/articleview/articleid/160/awarding-research-excellence#.WZq0y62B1E4.

Vercellone, C. (2007), 'From formal subsumption to general intellect: Elements for a Marxist reading of the thesis of cognitive capitalism', *Historical Materialism* 15, no. 1: 13–36. https://doi.org/10.1163/156920607X171681.

Vogelpohl, A., C. Hurl, M. Howard, R. Marciano, U. Purandare and A. Sturdy (2022), 'Pandemic consulting. How private consultants leverage public crisis management', *Critical Policy Studies* 16, no. 3: 371–381. https://doi.org/10.1080/19460171.2022.2089706.

Wallace, W. (2004), 'Afterword: Soft power, global agendas', in D. Stone and A. Denham (eds) *Think Tank Traditions: Policy Research and the Policy of Ideas* (Manchester: Manchester University Press), 281–290.

Weaver, R. K. (1989), 'The changing world of think tanks', *PS: Political Science and Politics* 22, no. 3: 563–578. https://doi.org/10.2307/419623.

Wiggins, J. S. (ed.) (2003), *Paradigms of Personality Assessment* (New York: Guilford Press).

Williamson, B. (2021), 'Making markets through digital platforms: Pearson, edu-business, and the € valuation of higher education', *Critical Studies in Education* 62, no. 1: 50–66. tps://doi.org/10.1080/17508487.2020.1737556.

Willis Towers Watson (WTW) (2017), 'Overview', https://www.willistowerswatson.com/en/about-us/overview, (accessed 28 December 2017).

Wright, S. (2015), 'Anthropology and the "imaginators" of future European universities', *Focaal,* 71: 6–17. https://doi.org/10.3167/fcl.2015.710102.

Wright, S. and C. Shore (eds) (2017), *Death of the Public University? Uncertain Futures for Higher Education in the Global Knowledge Economy* (Oxford: Berghahn).

Wright, S., D. Greenwood and R. Boden (2011), 'Report on a field visit to Mondragón University: A cooperative experience/experiment', *Learning and Teaching* 4, no. 3: 38–56. https://doi.org/10.3167/latiss.2011.040304.