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Rankings and higher education: reframing relationships within and between states

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Abstract

Higher education is a global enterprise. Its success (or failure) is integral to and a powerful indicator of the knowledge-producing and talent-attracting capacity of nations. But the landscape in which higher education operates today has become extremely complex; there are many more demands and many constituencies – the latter often with conflicting opinions – which have an impact on and a voice in shaping higher education's role and purpose. Since the millennium, university rankings have become one of these influencing voices. Rankings are no longer simply about enhancing student choice, but increasingly about geopolitical positioning for universities and nations.

Global rankings are an inevitable manifestation of the internationalised higher education market and world economy. They are testament to the fact that ability vs. inability to compete at this level has itself become a powerful driver. At the same time, these developments have changed – and are changing – the ways in which universities interact with the cities, regions and nations of their founding, and vice versa.

Burton Clark's *The Higher Education System, Academic Organization in Cross-National Perspective* (1983) provided an important entrée into this complex world of higher education relationships. But that world has changed considerably since Clark's book was published. If Clark was writing today, he would engage with these issues in ways that arguably weren't necessary or relevant in 1983.

This paper is divided into four parts. Part 1 reflects on my own journey, from looking at rankings as statistical-technical phenomenon influencing institutional decision-making to being a policy instrument reflecting and driving competition at institutional, national, and global levels, as well as being a lens into globalised higher education. Part 2 considers two issues which are helping to reframe the relationship between higher education and the state: 1) the accountability agenda, and 2) the increasingly geopolitical nature of higher education. Part 3 briefly discusses Clark's triangle of coordination, and asks to what extent developments over the past decades have changed this model.

Finally, the paper considers rankings in the context of recent developments, and considers their implications for higher education today. We sit at a historic junction – one in which higher education has the opportunity and responsibility to play a critical role in (re)building a shared sense of societal purpose and identity.

Introduction

Higher education is a global game. Its success (or failure) is integral to and a powerful indicator of the knowledge-producing and talent-attracting capacity of nations. But, the landscape in which higher education operates today has become extremely complex; there are many more demands and many constituencies – the latter often with conflicting opinions – which have an impact on and a voice in shaping higher education's role and purpose. Since the millennium, university rankings have become one of these influencing voices – no longer simply about enhancing student choice, but more about geopolitical positioning, for universities and nations. While not always or directly responsible for many policy actions or institutional decisions, rankings are undoubtedly an 'accelerator' of higher education reform, a prominent part of 'policy assemblages' (Lim and Oergberg, 2017, 2, 4). In this respect, they have succeeded in changing the discourse around knowledge, society and the economy (Magalhães and Amaral 2009), and re-framing the relationship of higher education within and between states.

Burton Clark's *The Higher Education System, Academic Organization in Cross-National Perspective* (1983) provided an important entrée into this complex world of higher education relationships. But that world has changed considerably since he first wrote. If he was writing today, he would have engaged with these issues in ways that arguably weren't necessary or relevant in 1983.

There are four parts to my talk today. I will reflect initially on my own journey, which has taken me from looking at rankings as a statistical-technical phenomenon influencing institutional decision-making to being a policy instrument reflecting and driving competition at institutional, national, and global levels, as well as being a lens into globalised higher education. In the second part, I will consider two key dimensions which have helped reframe the relationships between higher education and the state: 1) the accountability agenda, and 2) the increasingly geopolitical nature of higher education. In part 3, I will reflect on Clark's triangle of co-ordination. I will briefly discuss what it tells us about higher education's relationships with/to the state and other policy actors, and then ask to what extent the reframing of relationships changes his model. And finally, I will conclude with some thoughts about the implications of what this means for higher education today – especially in the context of recent political developments.

1. Reflecting on rankings and their influence

I first started looking seriously at the issue of rankings over 10 years ago. I had been working with the OECD (Organization for Economic Co-operation and Development) since 2001 and had previously completed a study of the development of research capacity in new universities. By 2006, global rankings had been around for a few years, but it was clear they were already having quite an impact on what

governments, and university presidents, thought about higher education and its place in the world. So – with the support of the OECD and the International Association of Universities (IAU), and later the Institute of Higher Education Policy (IHEP) based in Washington, D.C. – I began an international study of the influence and impact of rankings on higher education policy and academic decision-making. Over the years, I've traversed the globe many times, meeting and talking with political leaders and policymakers, university presidents and vice chancellors, faculty, senior administrators and students – learning first-hand how rankings are impacting on higher education, and influencing (or not) government policymaking, institutional decision making, and academic behaviour.

I had first heard 'officially' about global rankings at an EU conference I attended in Liege, Belgium, in April 2004. Titled *'The Europe of Knowledge 2020: A vision for university-based research and innovation'*, conference documentation expressed fears that

> Europe's universities may not be best equipped to respond to the challenges facing higher education in the 21st century. This concern has to be understood in the context of the goals of Lisbon and Barcelona and Europe's strive for becoming 'the most competitive knowledge society in the world' (Europa, 2004, 8).

The conference was an action of the modernisation programme for higher education in Europe. In addition to the usual referencing of higher education's role in the knowledge economy, what was particularly striking was the way in which global rankings were spoken about in the context of Europe's geopolitical goals, status and associated challenges. China along with India, Japan and Singapore were identified as 'major competitors for international research leadership' with questions being asked about Europe's preparedness (Europa, 2004, 51). The final report made four references to rankings.

The timing is particularly noteworthy. This was spring 2004. The Shanghai *Academic Ranking of World Universities* (ARWU) had been produced the previous June 2003 by a relatively unknown Chinese university as an initial trial run for its own use. And yet it was already a key theme of the Irish Minister for Education and Science, Noel Dempsey (2004), speaking in his capacity as President of the European Council of Education Ministers. He put the issue in context:

> Last year the Shanghai Jiao Tong University's Institute of Education ranked the world's top 500 universities on academic and research performance. For the European Union, the news is not all that good. The study shows that 35 of the top 50 Universities in the world are American…

There was an immediate realisation that while (as the final report stated) they 'were not (yet) accepted through the community' (Europa, 2004, 80), rankings were a key

feature of growing global competition and accountability (Europa, 2004, 36). In the wake of the Lisbon Agenda (Europa, 2000), subsequent EU communications have reinforced this theme (e.g. Europa, 2003, 2007a, 2007b, 2010a, 2010b, 2011, 2013).

EU concerns were matched by the German Ministry of Education and Research which put the situation in context:

> We have a lot of very good universities across the board in Germany, a high average standard, but what we lack are really top universities ... The latest ranking table clearly shows why it is that Germany needs top universities (Dufner, 2004).

A year later, June 2005, the German government launched the *Exzellenzinitiative* (Initiative for Excellence) – which has subsequently become a road-map for government responses to international competitiveness around the world (Salmi, 2016). The French Senate issued a report arguing its researchers were disadvantaged in favour of English-speaking institutions, and a conference organised under the auspices of the French Presidency of the European Commission championed the idea of a new EU ranking (EU Presidency, 2008). A meeting in Dublin in 2006 heard Martin Cronin (2006), then Chief Executive of Forfás, the national enterprise and science policy research agency, proclaim Ireland should aim to have 'two universities ranked in the top 20 worldwide' by 2013.

Chaos theory provides a useful way to look at the influence of rankings – something I don't think (m)any of us clearly or fully foresaw at the time. The butterfly effect is the *sensitive dependency on initial conditions* in which a small change at one place in a deterministic nonlinear system can result in large differences in a later state. Coined by Edward Lorenz, it is derived from the theoretical example of a hurricane's formation being contingent on whether a distant butterfly had flapped its wings several weeks earlier (Kelly, 1995, 180).

For something that began as an exercise associated with identifying key characteristics to help Chinese universities meet their own government's '985' policy, ARWU became the unwitting forerunner of a global industry (Liu, 2009). Over the years, there has been an avalanche of rankings. There are roughly four main periods, with each phase reflecting social and political characteristics of their time – with some overlaps. What Usher (2016, 25) calls the 'pre-history' (1900-1950s) emphasised the schooling and characteristics of birth of 'Geniuses' or 'Great Men'. Phase 2 (1959-2000) saw the rise of nationally-based commercially-driven rankings in response to growing massification, student mobility and the 'glorification of markets' – signified by the emergence of *US News and World Report College Rankings* in 1983. Phase 3 (2003-) witnessed the arrival of global rankings in response to the intensification of globalisation and global competition, and strengthening of the international academic and professional labour market. Phase 4 (2008-) launched the era of supra-national rankings (and other initiatives) in

recognition that the internationalisation of higher education necessitates processes and guidelines to monitor and regulate transnational education provision and quality, academic mobility and labour markets (Hazelkorn, 2015).

Global rankings were initially dominated by ARWU, quickly followed by *Times Higher Education (THE)* in partnership with Quacquarelli Symonds (QS) (2004), and Webometrics (2004). The Leiden Ranking and U-Multirank were both innovative in their own ways with the latter pioneering a multi-dimensional, user-oriented, non-ordinal approach which has subsequently been adapted, and arguably surpassed, by the major players. There have also been attempts to measure the performance of higher education systems, by the Lisbon Council (Ederer, 2008), QS and Universitas 21 – although none has achieved any prominence beyond the 'common fascination with league table hierarchies' (Marginson, 2016, 80).[2] *THE* and QS parted company in 2009, opening new opportunities to expand and multiply. *US News and World Report* (USNWR) re-entered global rankings while *THE*, in partnership with the *Wall Street Journal*, created a US ranking – signalling US higher education is part of the international landscape and no longer *sui generis* (Cantwell and Taylor, 2013). Today, there are over 150 different national and specialist rankings, and almost 20 global rankings – albeit only three (*ARWU*, *THE* and *QS*) are referenced regularly.

Both *USNWR* and *THE* began life as adjuncts to their newspapers; however, over the years that relationship has been upturned and become less transparent. Indeed, the former, established as a newsweekly magazine, is now best known for its rankings – with 80% of visitors going directly to the rankings. This experience is replicated by others – raising the question as to whether the newspapers or rankings are in the driver's seat. Others, such as QS are openly commercial. ARWU has been produced by the ShanghaiRanking Consultancy since 2009. Their enduring success rests upon their comprehensive databases of HE activity, as well as a range of other products and services (Robertson and Olds, 2016; Holmes, 2017b). One of the more cynical aspects, suggests one ranking-watcher, arises when, due to methodological changes, a university falls in rank only to seek/be offered advice to 'recover' by the very same ranking organisations (Pisanty, 2017). These examples highlight the growing expanse, and influence, of the global HE intelligence business, providing a rich vein of information which is monetised and used to inform policy, institutional and investment decisions.[3] Ultimately, these initiatives are likely to foster the necessity for a common international data set (Hazelkorn, 2015, xviii); whoever owns the data will be in a commanding position.

Despite ongoing criticism about rankings, and the appropriateness or otherwise of the methodology, rankings are now widely perceived and used as *the* international measure of quality. Their choice of indicators has been widely and uncritically absorbed into policy-speak even though there is an extensive body of international research which questions the meaningfulness of the indicators (Hazelkorn, 2015, 26-90). Being in the 'top 100' is widely interpreted as an aspiration and formulated as a national or institutional strategy, just as 'world-class' is now applied to almost every ambition and sector, from higher education (Shattock, 2017; Deem et al., 2009), to

workforce (Biro, 2013), manufacturing (Harrison, 1998), theatre (Gate, 2017), restaurants (Goldman, 2011), and of course sports – and has become a subject of academic study (CWCU). The number of peer- and non-peer reviewed articles, masters and doctoral theses, news commentaries, online articles and websites, and conferences, workshops and seminars is testimony. Today, there are almost 3m entries on *Google Scholar* for 'university ranking' but over 95m entries for 'world class university' on *Google*.

Much of the commentary and analysis focuses on the technical and methodological aspects of rankings, including choice of indicators and weightings, the changes thereof, and the changing status of individual universities, countries or world regions, and so on. Watching rankings has become an international parlour game. But as William Locke (2011) contends, 'all the things wrong with the rankings matter considerably less than the plain fact that the rankings matter'.

Reaction to rankings was initially strongest in Europe, but is now evident worldwide. Students and their parents remain an important audience for rankings, but now, all stakeholders – governments, employers, investors, potential HEI and business partners, the public and the media – are users in one way or another. Universities are one of the biggest users of rankings, not just in setting strategic goals, but also in their promotional material, recruiting staff, selecting partners, stimulating internal competition and for managerial purposes. The overwhelming majority of HEIs that I surveyed, initially in 2006 and again in 2014, using rankings to inform strategic decisions, set targets, shape priorities, and inform decisions about international partnerships - – even when most inappropriate (Altbach and Hazelkorn, 2017). While most universities wouldn't publicly admit it, 84% of surveyed HEIs have a formal internal mechanism to review their institution's rank on a regular basis, and in 40% of these cases, this is led by the vice chancellor, president or rector, indicating the seriousness with which rankings are treated. An EUA study suggested universities have learned to live with rankings, using them as part of an arsenal of institutional research tools rather than the primary or only source (Hazelkorn, Loukkoula and Zhang, 2014). The International Student Barometer (Hazelkorn, 2015), which receives feedback from over 143,000 students in 28 countries, indicates that over 80% of undergraduate and postgraduate (taught and research) students have a high interest in rankings. Among US students, reputational factors now predominate, displacing 'quality of teaching' which no longer appears in the top 10 influential factors in deciding what HEI to attend (Hazelkorn, 2015, 150).

There are interesting differences, as well as similarities, according to world region (see Yudkevich, 2016). Developing countries use rankings to measure quality when external quality assurance systems are weak or non-existent and/or as a gauge and/or symbol of global competitiveness and engagement in/with world science – all of which are applaudable goals. However, rankings also encourage fanciful ambitions and timelines. Nigeria established a quality-assurance system to help 'drive up standards and boost the Nigerian university sector's global standing' with the aim of having 'at least two institutions among the top 200 universities in the world

rankings by 2020 – the so-called 2/200/2020 vision' (Okebukola, 2010). As part of a wider reform package, Vietnam aims to have a higher education system that is 'advanced by international standard, highly competitive, and appropriate to the socialist-oriented market mechanism' with two top-ranked universities by 2020 (Le Huong, n.d., 12; Hoa, 2016). For the BRICS, having a world-class university is the sine qua non. To this end, India has engaged directly with both *THE* and *QS* to devise indicators specifically relevant to its national context (Maloo et al., 2016; Lim and Oergberg, 2017, 97-99), while Russia has devised its 5-100 programme to 'target the growing gap in Russian research performance, by seeking to provide financial support for a limited number of institutions to become world-class universities' (Taradina and Yudkevich, 2016, 145). One of my more disturbing conversations was held recently with a Syrian university, worried about its ranking, and wondering why it was not performing better than neighbouring universities.

Fanciful goals are found in Western universities too. The University of Kentucky (USA) was forced to abandon its plan to reach the USNWR top 20 by 2020 because of the impossibility of meeting the criteria without abandoning its mission as a land-grant university and becoming more prestigious and selective. In the process, its actions created a funding gap of $420m (DeYoung and Bass, 2012). A similar tale is told of the University of Rochester, which realised that to move up just two points on the *USNWR* rankings would cost $112m (Rivard, 2014; Gnolek et al., 2014). In 2013, Trinity College Dublin (TCD) toyed with the idea of changing its name – reclaiming the title of the University of Dublin – but ultimately abandoned the proposal due to unprecedented protest (Murphy, 2013). That Yale now feels compelled to engage with rankings illustrates the extent to which rankings challenge (perceived) dominance within the global geography of higher education (Holmes, 2016; cf. Brenzel, 2013). This – along with Brexit – may help explain Newcastle University's abandonment of its descriptor as a civic university in preference to pursuing global positioning (Holmes, 2017a).

Any thought – or hope – that national and/or university reaction would temper with time has been 'greatly exaggerated' – to paraphrase Mark Twain.

2. Reframing relationships[4]

The history of rankings stretches back to the late 19th century, but it is the intensification of globalisation that has been the most powerful force and explanation for their emergence and success since the turn of the millennium. Today, as the distribution of economic activity and scientific collaboration has become increasingly international, higher education has been transformed from a local institution into a global actor. No longer simply part of national systems, it is an important part of the global economic architecture – with 'world-class' universities in global cities playing a strategic role. Universities and colleges are critical to sustainable social and economic development, sending out strong signals to mobile capital, business and

talent about the competitiveness of nations and regions. Across teaching and research, they operate increasingly as multi- and transnational entities seeking to maximise competitive advantage for themselves *qua* institutions, and for their staff, students and graduates *qua* elites. Globalisation has facilitated increasing concentrations of wealth and resources, leading to an intensification of hierarchical differentiation and social stratification, while opening the door for new entrants. The academy has not been a disinterested participant in the process – benefitting from its close association with high-ranked well-endowed research-intensive elite universities.

Rankings are an inevitable outcome and metaphor for the geopolitics of higher education. Because they predominantly measure basic research and dissemination – in limited fields and in a traditional way – they provide competitive advantage to elite universities and nations which benefit from accumulated public and/or private wealth and investment over decades if not centuries (Hazelkorn, 2009). They reflect the structure of the world economy and global science. They are, as Cantwell (2016) argues, a 'report card' on disparities in resources and the unevenness in the global production of knowledge, the effect of which is to legitimise such inequities. Nonetheless, they have succeeded in putting higher education into an international comparative framework, and telling us 'something' about the competitive advantages of our institutions, and our nations. Higher education now sits at the fulcrum of the geopolitical struggle for a greater share of the global market and the new world order. Doing well in rankings has been variously described by Andrei Fursenko, Russian Minister for Education and Science (quoted in Kishkovsky 2012), as equivalent to an 'instrument of competitive battle and influence' and by *The Irish Times* (Editors, 2009) as 'a key factor in helping to attract inward investment'. If, as Castells (1996) observed, higher education is the 'engine of the economy', then how it is governed and managed necessarily comes to the fore, along with matters of quality, performance and productivity.

2.1 Relations within states

The earliest universities in Europe, dating back to the 13th century, were situated in leading cities and towns, and closely linked to the local political authorities either of the church or state (Vallance, 2016). Known as *studia generalia*, they were places where scholars from across Europe were encouraged to come and give lectures and share ideas – laying down one of the key foundation stones for today's universities. The emergence of modern science in the post-Renaissance era engendered a closer connection between the university and society, with new institutions underpinning the formation of the nation state in Germany and France. Beginning in the 19th century, civic universities in the growing industrial cities of England and land-grant universities in the US (under the Morrill Act of 1862), along with comparable examples in other parts of the world, were created to meet a growing and widening social and economic agenda. As the systems expanded in the late 20th century,

other types of institutions were established to meet a growing diversity of labour market and student needs (Trow 1974, 124; Hazelkorn 2012). In most cases, the state has been the primary driver and facilitator of these developments.

The relationship of higher education to society has strengthened over time and now forms a stronger part of government policy and, correspondingly, higher education priorities. Academic autonomy has been an enduring principle but so also has been the role of the university in society, formalised in terms of teaching, research and (public) service/engagement. The *Magna Charta Universitatum* (1988) seeks to balance university autonomy with serving society: '…the universities' task of spreading knowledge among the younger generations implies that, in today's world, they must also serve society as a whole…'. The Irish Universities Act (1997) similarly linked these roles: 'to promote learning in [the] student body and in society generally', 'to promote the cultural and social life of society', and 'to disseminate the outcomes of its research in the general community'. Drawing on Habermas, Pusser (2006, 19) proclaims the university *as* 'the public sphere', the place where 'open conversation and collaboration in a public space, [and] where critiques could be generated in pursuit of the public good'.

As the debate about widening participation, employability/employment and graduate attributes intensifies in many countries, the public is asking whether its interests or expectations are being served (HEFCE, 2010). Those views and hopes inevitably vary depending on who is asking – students, parents, employers, the media, politicians, etc. US surveys show public concerns about credential relevance and cost are high on the agenda with many people unhappy with levels of accountability (Public Agenda, 2016; Stoner, 2017; Carter, 2017). An American Association of Colleges and Universities (AAC&U) survey showed a gap between how students and employers viewed career readiness (Jaschik, 2015). Studies and commentary in the US and UK suggest higher education is too self-serving rather than concerned with giving students a quality education (Morgan, 2016; Immerwahr and Johnson, 2010; Lumina 2013); they note broad public approval but also uncertainty about its many functions and valuable contributions (HEFCE, 2010, 26). While there is a consistent view that a college education is important and highly valued (BSA, 2013; Ipsos MORI, 2010), 83% of European students '(strongly or rather) agreed that independent reports on the quality of universities and programmes would help students to decide where to study', and an equally high proportion would like to be involved in quality reports and rankings (Eurobarometer, 2009, 5). Almost everywhere, there has been a war-of-words about the quality of graduates as well as more general questions about the value of higher education, set against a background of decline of public trust in public institutions (HEFCE, 2016; Kelly and McNicoll, 2011; Dommett, 2016; Rammell, 2016).

There are probably three dimensions that underlie concerns about quality. First, assessment is required to show qualifications are of high quality and internationally comparable and transferable. This is especially important in a globalised world, in which students and graduates are mobile and employers recruit internationally.

Second, government or students (or other stakeholders) are increasingly aware of getting value for money. For government, there is the added incentive of endeavouring to ensure it can get more for less by achieving what it regards as efficiencies, while for students it is the association with salary, career and lifestyle. Third, massification and the surge in student demand and mobility has led to spectacular growth in the number and range of educational programmes, and providers, inter alia for-profit and transnational/cross-border HE (Calderon, 2012). There are corresponding concerns about standards, accountability, unethical practices and promises, and allegations of corruption.

Traditionally, the academy has relied on peer review, and internal procedures of quality assurance at the individual programme or institutional level. Since the late 20th century, massification and globalisation began to alter the relationship between higher education and the state (Dill and Beerkens, 2010). As an element of this, quality assurance processes and practices have developed and expanded over the years. Clark outlined three basic models: the European model which traditionally was managed via state educational ministries, the US decentralised model via regional accreditors, and the British model which recognised the role of self-accrediting universities (Clark, 1983). The Bologna Process moved beyond this with its emphasis on student learning outcomes; the EU Lisbon Agreement, which set out Europe's strategic ambitions along with similar geopolitical agendas, placed pursuance of excellence at its heart (Olsen and Maassen, 2007; Maassen and Stensaker, 2011; Hazelkorn and Ryan, 2013, 2016). Recent years have witnessed strong international convergence as academic self-regulation is overtaken by stronger emphasis on codification of practice and process, and a stronger role for national governments and supra-national agencies.

In the US, quality assurance has traditionally been the shared responsibility of the 'triad' comprised of the federal government, regional accrediting agencies, and state governments, with critical support of the academy. The federal government's role has been relatively minor except with regards to 'insuring institutions act as trustworthy stewards of public funds and provide students that which they are in fact paying' (Dill, 2001). Over the years, there has been a shift from professional self-regulation to institutional processes mediated through intermediary accrediting organisations to involvement of the (federal) government. One example is the Obama administration's decision to establish the *College Scorecard*. The idea was announced in the 2013 *State of the Union* address with the aim 'to hold colleges accountable for cost, value and quality' (DoE, 2013, 2016a.). It followed, inter alia, from recommendations of the Spelling's *Commission on the Future of Higher Education* in 2006, established during the Bush administration. The latter urged new accountability measures based on 'better data about real performance and lifelong working and learning ability' (DoE, 2006, 14). Its strong support for more federal involvement caused controversy at the time, with the American Council of Education (ACE) withholding support (Klein, 2006). More recently, three Democratic Senators have proposed tightening up accreditation and 'strengthening accountability for students and taxpayers,' (Warren, 2016) – some of this coming in response to

controversies over predatory practices of for-profit providers and poor career prospects for students (DoE, 2016b). As well as this, the Government Accountability Office (GAO, 2014) is reviewing accreditation practices and the practices of accreditors. While there has certainly been disquiet among public institutions and accreditors about these incursions, any likely loosening of the regulatory framework under the new Trump administration is likely to benefit elites and the for-profit sector.

In the UK, professional self-regulation, underpinned by a strong culture of external peer-review, has been a distinguishing characteristic of the system. External examining has been around since the early 19th century and was strongly encouraged by the government in university charters (Lewis, 2010), and later via the Academic Audit Unit (AAU). In contrast, polytechnics and colleges were overseen by the Council for National Academic Awards (CNAA). With the decision to move towards a unitary system, a single quality assurance process was necessary, leading in 1997 to the Quality Assurance Agency (QAA). Over the years emphasis favoured institutional reviews, but the resulting reports were never intended for a public audience. They are usually unintelligible to general audiences, and unsuitable for measuring and comparing institutions and student performance across countries. This has arguably contributed to a breakdown in trust, and a gap which rankings have filled. The *Teaching Excellence Framework* (TEF) speaks to a range of needs and interests, including a more sceptical political system and public, and a diverse educational market. The academy hasn't helped itself as it has often vacillated between inadequate active involvement (Harvey and Stensaker, 2008) and complaints about the regulatory burden.

Elsewhere, an array of government-led initiatives has emerged – clearly influenced by growing demand for internationally comparative data, a vital building block of a globalised landscape. Rankings have not been the usual official choice, albeit there has been a willingness for some governments to work with ranking organisations, for example Macedonia and India, or to embed rankings as part of its strategic ambition, for example, Malaysia, Russia or France (Salmi, 2016). The UK (Unistats), along with Australia (QILT) and Catalonia (Winddat) have made university statistics and performance open to public scrutiny. Policy-making by numbers is a pejorative way to describe the use of key performance indicators (KPIs), which frame decision-making and resource allocation almost everywhere. These trends are moving ahead at a significant pace, putting powerful new open source and social networking tools directly into the hands of applicants/consumers and the public, and effectively beyond the ability of the academy and/or government to affect or interpret the outcomes (Selingo, 2013).

Another development is the emergent role of myriad international organisations, guidelines and processes. As aforementioned, Bologna emphasised free movement of students, faculty and workers across boundaries facilitated by trustworthy information and with the assurance that their performance will be recognised in other parts of Europe; the Copenhagen Process sought to do similarly for European VET. Initiatives such as U-Map and U-Multirank were hailed as profiling tools also aiding

differentiation to create a distinctive research-intensive group of universities on a par with the AAU in the US (Europa 2011, 2). U-Multirank was developed in tandem with the OECD's AHELO project; HEInnovate has been developed as another EU-OECD system benchmarking tool and project, while the latter is also developing an international benchmarking project. Eaton (2016) discusses the QA revolution in terms of the number and remit of international quality assurance organisations, which have played a significant role in pushing the accountability agenda forward.

These developments confirm a Rubicon being crossed. Quality is a contested concept. While higher education has traditionally been the primary guardian of quality, this role has effectively been usurped. The internationalisation of higher education, the growth of a global professional labour market, the increasing presence of for-profit and transnational providers, and the link between higher education and economic recovery has transformed quality from something being institutionally-led to being driven and regulated by the state, and now a critical part of the architecture of international higher education. Higher education's overarching importance for talent-maximisation and knowledge-production has, Marginson says (2010), invited or necessitated greater steerage or 'over-regulation of academic output as performance'.

The accountability agenda is often described as part of neoliberal, ideologically-driven reform and restructuring of public services (Lynch, 2014; Silova and Brehm, 2015). Ferlie et al. (2008) argue that 'steering patterns can be linked to underlying narratives of public management reform which apply to higher education subsystems as well as to other public service subsystems.' Neave (1998, 2012; see also Dahler-Larsen, 2007; van Vught, 2007) says the desire to ensure 'more rapid responses from institutions of higher education' to societal requirements is leading to re-balancing relations between higher education and the state, with implications, according to the European University Association (EUA) (Estermann and Nokkala, 2009, 6) for 'institutional autonomy'. Others put some blame on the academy; for example, Coates (2017, 6) argues that

> universities should be among the most transparent institutions in the world, yet significant gaps remain about how to define and describe what they do and how their purpose is best conveyed to diverse audiences.

Calhoun (2006) chides the academy, saying it has been insufficiently engaged with the society upon whose support – financial and moral – it depends.

Whichever perspective is taken, what is clear is that priorities are being set increasingly by governments through national strategies or performance agreements (Benneworth, et al., 2011; de Boer et al., 2015). The engagement agenda, with its own raft of indicators, is part of this trend, providing a mechanism whereby societal objectives – influenced by government, business and civil society – shape higher education priorities (Murray, 2017). Whereas historically the state provided for the needs of universities, today the university provides for the needs of the state. Higher

education is being harnessed to the needs of economic recovery and growth in a direct and visible way, profoundly changing the relationship of higher education within the state. In this way, it is too simplistic to lay the origins of, or blame for, the accountability agenda simply at the feet of neoliberalism.

2.2 Relations between states

The current phase of globalisation is part of a historic continuum of mobility of people, capital and services, creating 'hybrid world cultures…by the mingling of global-brand culture and indigenous traditions' (Scott, 1998, 122). Marx's 'heavy artillery … batter[ing] down all Chinese walls' (1948, 125) is echoed in Castell's 'networked society' (1996) and Friedman's (2005) flattening out of the world. The process is not just ignorant of national boundaries but is actively and daily destroying boundaries while creating new opportunities, working practices and forms of social networking – as well as new challenges and problems. But, even before the 2008 global crisis and subsequent Great Recession, OECD countries were facing challenges associated with competition for investment capital and what is called the 'battle for brainpower' (Wooldridge, 2006) or 'war for talent.' (Michaels et al., 2001) In the intervening years, relative differences in levels of investment have enabled a 'huge shift in the composition of the global talent pool' and in R&D, reflecting the growing value-based and knowledge-intensiveness of economic competition between nations and world regions.

Beginning in the latter part of the 20th century, the knowledge economy paradigm introduced and promoted rhetoric around the role of higher education and university-based research as a driver of economic recovery and growth (OECD, 1996), not just nationally but in an international, globalised context. This policy refrain has only intensified over the years in association with the acceleration of global competition, with higher education institutions (HEI) assuming the role of 'anchor institution' (OECD, 2007; Goddard and Vallance, 2013; Lane and Johnstone, 2012), and 'anchors of stability and growth in their regions' (AAA&S, 2016). Individually and collectively, these developments have transformed HEIs into what Marginson (2010) refers to as 'competing universities-as-firms', closely intertwined with their state's global ambitions and sustainability. In different ways and in different national contexts, they have underpinned higher education policy and reform, the reformulation of the 'social contract' (Benneworth et al., 2016, 149-185) and changes in co-ordination, including governmental steering and market-like policy instruments (Dill, 2001).

The previous decades had seen the EU, Japan and US dominate science and technology (UNESCO, 2010). Recent years have seen the rapid expansion of R&D performance in the regions of East/Southeast and South Asia. While representing only 25% of total global R&D in 2001, these two regions have increased their share to 34% in 2011, with China exhibiting the most dramatic R&D growth pattern (NSF,

2014, ch.4).[5] The knowledge economy paradigm has correspondingly seen China, Singapore, Malaysia, South Korea and the Gulf countries seek to challenge the primacy of the USA and Europe by creating world-class educational and research hubs. These centres, with higher education at their heart, are the basis of competitive advantage (Knight, 2011; Mok and Jiang, 2017).

For decades, the US had the world's highest tertiary graduation rate, enabling it to supply almost a third of today's 55-64-year-old graduates across the world's major economies and countries (Schleicher, 2016). Today, that rate is shrinking due to relative growth in other countries. As college education becomes less accessible and affordable in the US, and European countries face budgetary challenges, other countries are moving ahead. With targets to dramatically raise higher education participation rates, massification is transforming universities and these economies, and underpinning the expansion of a new middle class (McKinsey, 2013; Economist, 2016), two thirds of which will reside in Asia by 2030 (Kharas, 2017). By then, China and India could account for more than 60% of STEM gradates in the G20 area, with Europe and the United States providing a mere 8% and 4%, respectively (Schleicher, 2016).

In the past, OECD countries competed primarily with countries that offered low-skilled work at low wages. This is changing. It is no longer simply jobs that are moving but know-how and technology (WIPO, 2015, 13). Because knowledge is a key component of competitiveness, indicators of investment, especially in the bio-sciences and technology, as a percentage of GDP, have become powerful drivers of international benchmarking, resource-intensive competition and government policy. The OECD expects that over the next 50 years, changes in the world order are likely to intensify, as the 'economic balance [shifts] towards emerging economies, particularly those in Asia, with the share in world GDP of non-OECD countries rising well beyond that of the current OECD area by 2060' (Braconier et al., 2014, 6; Mahbubani, 2017). In anticipation, the OECD has been expanding its membership and engagement with emerging societies, the G7 has been overshadowed by the G20, and the EU has looked to China to help overcome its financial crisis (Alderman and Barboza, 2011). As China takes on the mantle of internationalisation, the US and UK retreat. The state's capacity to control the impact of global forces, despite its best efforts in the immediacy of the 2008 financial crisis, has been called into question, which helps explain the rise of populism (Inglehart and Norris, 2016; Thompson, 2016; Taub, 2016).

The expansion of internationalisation through students and academics/scholarly mobility has been an important feature of recent decades. But internationalisation is now moving into what Gallagher and Garrett (2012) refer to as its third phase. Education is usually discussed in terms of being an internationally-traded service, as via GATS and other trade agreements. Rather than simply an enriching (personal) social-cultural experience, higher education and state economic priorities are increasingly conjoined around issues such as the importance of a graduate diaspora and national trade interests (cf. DES, 2010).[6] These developments have often been

controversial, not least by challenging traditional views about higher education as a non-commercial public good, but they have also benefited higher education, replacing funding at a time when the state has withdrawn. Like other multi-/transnational corporations, universities have been active players in this phase of globalisation, seeking to maximise competitive advantage for themselves *qua* institutions and their nations. Their global operations are promoted and consolidated through trade/recruitment missions, transnational education provision, and cross-border opportunities and university associations, e.g. League of European Research Universities (LERU), Coimbra Group, Universitas 21, World University Network (WUN), Compostela Group of Universities (CGU), World Cities or the WC2 University Network, and the ASEAN University Network.

'[T]ransnational academic capitalism' (Kauppinen and Cantwell, 2014) builds and utilises global knowledge production networks, enabling higher education to access the best resources and talent on a global scale. Students and faculty both gain, acquiring additional and/or further consolidating private benefit and social capital, while garnering and boosting their own prestige in the labour market. In these processes, rankings provide a gateway; 70% of surveyed HE leaders said rankings influenced the willingness of other HEIs to partner with them, and 45% believed rankings influenced the willingness of other HEIs to support their institution's membership of academic or professional organisations. As one university president noted: 'Ranking results may not be the crucial factor in forming partnerships', but they grease the wheels (quoted in Hazelkorn, 2015, 127).

The interconnectedness of the global economy and labour markets has necessitated greater international controls and regulation, underpinning questions around perception and assessment of quality: mutual recognition of academic qualifications/credentials; internationalisation and student, graduate and professional mobility; transnational education and cross-border providers; and quality assurance systems and processes. An alphabet soup of international and supra-national organisations and associations, e.g. the OECD, UNESCO and the World Bank (Henry et al., 2001) have established new multilateral governance arrangements to respond to this complex global environment (Guzzini, 2012, 8). The former is developing a system benchmarking tool as an indication of its renewed presence following the collapse of the IMHE initiative in 2015 (https://www.oecd.org/edu/imhe/), while UNESCO is pushing ahead with plans to draft a new global convention for higher education to coincide with its 2020 world congress. In the interim, other international players, such as the British Council and the Qatar Foundation, have been stepping up their activities to fill the policy vacuum.

Robertson et al. (2016c, 1) suggests these actions reflect a degree of 'ceding authority and sovereignty'. It is also acknowledgement of some inadequacy at the institutional and national level 'for addressing the internationalization of knowledge and the worldwide movement of students and scholars' (Aims McGuinness in Dill, 2001, 102) – hence, a web of top-down/bottom-up, and soft/hard structures and processes have emerged. The EU Bologna Process is a good example of this

complexity; it represented a significant move to bring coherence to otherwise disparate national systems and make European higher education more competitive internationally (Corbett, 2005; Melo, 2016). The ASEAN region has similarly embraced higher education as key for regional economic growth, drawing inspiration from Porter's (1998) ideas about competitive advantage. The desire for greater international involvement and co-ordination, including quality assurance and cross-border regulation, has also come from higher education and its representative associations, such as IAU and EUA, as well as ENQA, CHEA, INQAHEE and CIQG.[7] There are similar initiatives elsewhere at an earlier stage of development, e.g. the ASEAN Qualifications Reference Framework (AQRF) Task Force in Asia, the African Quality Assurance Network (AfriQAN), and South America's MercoSur-Educativo.

These developments coincide with and go some way to explain the rise of and fascination with global rankings (Hazelkorn, 2016a). Because nations increasingly compete based on their knowledge and innovation systems, higher education is at the centre of geopolitical relations, transformed from being a predominantly social institution with a local or sub-national remit to being the cornerstone of economic policy with geopolitical responsibilities. The higher education landscape is a 'relational landscape' (OECD CERI, 2009). Institutions and nations are measured against each other, highlighting comparative and competitive global advantages and disparities in capacity and capability, and reflecting a world order in flux. As such, they generate enormous reaction at strategic and visceral levels. Research excellence continues to be concentrated in the US and Europe, but the changing dynamics described above foreshadow a growing multi-polarity beginning to be evidenced in global rankings – especially 'below' the top-100. While there are unlikely to be radical changes in the short term (Taylor, 2017), contrary to the stark assumptions within world system or dependency perspectives, the periphery is gaining ground against the centre (Wallerstein, 1979; Frank, 1966).

Developed countries are finding it difficult to maintain their competitive position in the face of significant increases in investment, performance and productivity in neighbouring and emerging economies. For countries dependent upon attracting talent, especially in S&T, new immigration policies in both the UK and US are likely to aggravate this gap – a strangely ironic policy at this disruptive point in history (Fung and Jan, 2017; Rodionova, 2017; Newbury, 2017). Regional alliances, such as those of EU and ASEAN nations, alongside greater strategic attention at the sub-national level, such as the EU strategy for smart specialisation (EU, 2014), are attempts to respond by maximising capacity beyond capability. Ability vs. inability to compete at this level will shape future strategies, and further amplify the global divide between economic regions, and universities (Sassen, 2011). Given changing political dynamics – the shift towards nativism and protectionism – there are likely to be significant changes going forward. Rankings are effectively a lag-indicator – in other words, because investment and outcomes transpire over time, rankings reflect changes in the global system which have already occurred.

3. Reflecting on Burton R. Clark

Burton Clark's (1983) triangle of coordination represented a major advance in our thinking about higher education governance and authority. Drawing on international comparisons, he identified three ideal types – the state system, market system and professional system – to form the basis of 'two- and three-dimensional spaces for comparing national systems' (Clark, 1983, 136). Each ideal type describes an approach to oversight, co-ordination and interrogation of tensions that invariably arise between 'dependence on authority and dependence on exchange' relations with 'the more loosely joined the system the greater the dependence on exchange' between sector interests (Clark, 1983, 138). He cited Sweden as having the 'most inclusive and tightest degree of co-ordination' and the US at the opposite end of the spectrum with 'characteristics of autonomous choice and market exchange' (Clark, 1983, 139). England, Canada and Japan were situated in-between. The paradigm becomes a 'triangle of co-ordination' when the 'academic oligarchy' is introduced, drawing upon the experience of professional influence and/or dominance existent in some European countries.

The three corners of the triangle may be variously sub-divided, in recognition of tensions and contradictions. For example, state authority can split into bureaucratic and political components (Clark, 1983, 146). This gives way to four forms of co-ordination, i.e. bureaucracy, politics, profession, and market. There may also be shifts in co-ordination arrangements expressed in terms of competing forces of centralisation and decentralisation – for example, between governance and autonomy – as well as what Clark (2008, 390) calls 'curious cross-mixtures'. Over time, as the system expands and pressure arises for 'more and better' higher education, it gives rise to different providers with differentiated roles. As needs expand and governance arrangements become more complex, external groups – e.g. trade unions, organised representative groups and/or educational and scientific elites – have greater involvement. Higher education becomes subjected to 'what may be called power markets, markets composed of units struggling against one another within the broad frameworks of state authority' (Clark, 1983, 176). As market type behaviour begins to overshadow other circumstances and HEIs jockey for position and status, prestige-seeking emerges as a defining characteristic of academic behaviour (Clark, 1983, 165).

The key attribute of Clark's model is that it sought to move discussion of higher education beyond transactional relationships to embrace a complex dynamic between the forces of the state, the market and the academy. His triangle provides an 'heuristic for studying, comparing, and classifying national higher education systems' (Marginson and Rhoades, 2002, 283). However, the 'co-ordination' Clark described was, understandably given its historic timing, largely focused on the dynamics within a single state, and within a university. The political was envisaged primarily in terms of formalised political authority, and how it 'flow[s] more readily through the regular political channels of government and the related structures of the

political parties where they exist' (Clark, 1983, 152), although he also recognised the role played by students 'as both necessary critics and leaders of change' (Clark, 1983, 155). Nowadays, these roles overlap with a growing public *qua* civic society dimension, having a more demonstrable presence, and complicating coordination or governance arrangements. International comparisons formed the basis of Clark's original analysis but the 'global' dimension was not a prominent factor, neither as a description of what was happening nor an actor. Since then, various people have sought to move the analysis forward in recognition of these new dynamics by invoking other concepts, inter alia: globalisation (Marginson and Rhoades, 2002), regionalism (Robertson et al., 2016a), marketisation (Rhoades and Slaughter, 2004), the knowledge economy and the innovation ecosystem (Etzkowitz and Leydesdorff, 1997), manageralism (Deem, 2001), and accountability (Ferlie et al., 2008).

It is difficult to ignore the fact that the expanse of social, economic, political and ideological change over recent decades has had implications for public policy about higher education. While nation states remain the primary feeding and breeding ground of higher education, HEIs operate increasingly within a multi-dimensional, multi-level and multi-lateral paradigm. There are competing demands and needs from local, national, global levels, and from a more diverse range of constituencies and publics. There are conflicts within these different groupings, as none are homogeneous; indeed, tensions within and between organs of the state are regular occurrences. Some of this is associated with the complexity of decision-making and massification of systems, but there are also changes in expectations around the 'social contract' – and the role and purpose of (higher) education in/for society and the economy. The rise and influence of rankings reflect and help drive changes in the modes of co-ordination, often presented as tensions between (university) autonomy vs. (societal) accountability.

I now want to reflect here, very briefly, on the previous discussion, and consider how it may help to update and expand our thinking about Clark's triangle.

First, as Trow (1974, 91) noted, as the system expands in terms of students and providers, matters of higher education come 'to the attention of larger numbers of people, both in government and in the public… [they will] have other, often quite legitimate, ideas about where public funds should be spent, and, if given to higher education, how they should be spent'. Paraphrasing Scott (1995), the accountability agenda corresponds to this current phase in state-societal relations, with its emphasis on multi-actor environments and new modes of co-ordination and accountability. The 'triple helix' concept is portrayed as a tripartite relationship between university, industry, and government (Etzkowitz and Leydesdorff, 1997) operating within an innovation eco-system (Nelson, 1993). Over the years, this has evolved towards the 'quadruple helix' (Carayannis and Campbell, 2012a), with added involvement of civil society, and more recently the 'quintuple helix' (Carayannis et al., 2012), in acknowledgement of the role of the social and natural environment. Rankings have also been a factor – drawing public and political attention to the contribution, impact and benefit of higher education on society and for individuals.

These developments were originally described by Gibbons et al (1994) in terms of the evolution from traditional Mode 1 self-accountability to Mode 2 societal accountability (Gibbons et al, 1994). I want to go further, suggesting Mode 3 accountability is evidenced by active-engagement, societal intervention, public endorsement and principles of reciprocity, with corresponding changes to teaching and research within the university, as well as around the social contract within the state (Hazelkorn, 2012, 843; Hazelkorn, 2016c, Carayannis and Campbell, 2012b).

Second, global factors are increasingly significant because of the growing significance of the world economy and internationalisation of higher education. There are implications not only for institutions but also for national governments and for global organisations/associations in the context of, inter alia, economic competitiveness and trade, demographic shifts, labour market and technological changes, and student/professional mobility. This has consequences at the national level certainly, but there are also affects internationally because higher education's talent and knowledge productive capacity/capability is inter-reliant on globalised mobile talent, services and products. Robertson et al. (2016b) argue higher education 'is being drawn into the logic of capitalist expansion and world market-making'. But, a globalised economy has certain pre-requisites around mobility flows, e.g. recognition of credentials and quality assurance, standard setting and guidelines, data definition and collection, etc. Thus, developments are not simply top-down aspirations; HEIs and governments often request tools and processes that can enable and support their needs for greater and smoother integration. Rankings have been a hidden force, highlighting the international competitive link between economy, knowledge and talent, fostering global networks of transnational/universities, including government-sponsored initiatives (UK/US, 2009; ACE, 2011), and underpinning the advancement of regionalism and (re)structuring of systems and institutions.

The common denominator from these two vignettes is the degree of complexity which obliges us to re-examine Clark's classic 'triangle of coordination'. There are an increased number of societal actors and publics, each of which are themselves multifaceted, and an intensification of multi-lateral and multi-level engagements between the state and higher education at the local, national and global levels. These dimensions are neither separate or parallel strands of activity, nor is there a simple binary between different modes of co-ordination (Horvath, 2017). For example, the state's authority is not simply supplanted or driven by global interests. Rather, the dimensions overlap and coalesce, often displaying a mutuality of interests as well as tensioned relationships. Marginson and Rhoades (2002) reimagine this complex dynamic in terms of a 'glonacal' bringing together the global, national and local; Dale (2005, 131-3; Dale et al, 2013) proposes the notion of a multi-dimensional 'pluri-scalar' model; and Salazar and Leihy (2013) re-construct Clark's single triangle as three inter-related ones using the concept 'microcosmographia'. The main point is that, in different ways, the accountability agenda and the geopoliticalisation of higher education are helping to change relationships within the state, which cut across national systems. Higher education's

own role in this process is equally complex; it is neither a bystander nor an innocent victim, but increasingly a global actor extending its influence in a progressively more competitive, diversified and stratified landscape. Ever more strategic, HEIs operate across global, national and local boundaries, interacting with an assemblage of multifaceted stakeholders, at home and abroad, each with their own dynamic. Rankings are part of this dynamic.

4. Final observations

This paper has discussed the changing interface between higher education and the state and the extent to which it has altered since Burton Clark first wrote about it. I want to make four final points.

First, let's not let criticism of rankings fool us. HE's foremost role in talent and knowledge production makes it integral to national and global power relations. There is also a strong affinity between HE's own eagerness, and arguably its necessity, to perform well internationally and the state's necessity to promote and capitalise on HE for competitive advantage. While competition has accelerated between nations and their universities for a greater share of the global marketplace, pursuance of 'world-class' status is a shared strategy of transnationalising elites (Taylor, 2017; Kauppinen and Cantwell, 2014). Transnational networks form a necessary function in strengthening position within the global knowledge value chain. Rankings are an important tool in this regard – which explains why nations and institutions both use rankings as a benchmark of success. We are very accustomed with the way in which governments have unashamedly used rankings to re-shape strategy, systems and resource allocation. But, we should also recognise university and academic behaviour. However, allegations of 'gaming' simply deflect attention away from the bigger problems associated with rankings, and the way in which HEIs use them to strengthen their value-proposition by restricting access to 'positional goods', such as credentials.

Rankings reflect and map this changing dynamic. Looking beyond its technical/mechanical characteristics – which we have come to love and hate – rankings have a hegemonic role, framing/reframing the relationship of higher education to the state and society. While higher education is distinctively national, rankings have successfully challenged their 'nation-boundedness' (Dale and Roberston, 2007) and helped restructure the rules-of-engagement, exposing the co-dependence between the economy, knowledge and talent. Rather than seeing higher education as an innocent victim, universities and their faculty have become global actors constructing and extending their own sphere of influence in a competitive, hierarchically differentiated status system (Bastedo and Bowman, 2011, 10).

Second, there is little doubt that rankings have coincided with the necessity for closer scrutiny of quality, performance and productivity. But, the accountability agenda is not simply a manifestation of neoliberalism. Yes – there are underpinning ideological drivers which have seeded deep questioning about the role and purpose of public-good facing organisations. But as global competition accelerates and the reputation arms race heats up, it is evident that no government can or will be able to afford all the HE its citizens demand or society requires. Usher (2012) argued that the maximum point of public investment in HE was probably reached around 2009. It is also fair to say that too much is made of the tensions between state governance and institutional autonomy – and that, as Calhoun argues, HE needs to (re)affirm its commitment to the public good in a way that goes beyond making a simple correlation between what it does (teach and research) and societal benefit.

The public voice, which was largely absent from Clark, has asserted itself in a demonstrable and vocal way – and not always to our liking. In ways which are becoming evident, these changes highlight also the extent to which the university has become isolated from its many publics. Thus, as these new constituencies, such as students, business/enterprise and civic society – each of which are heterogeneous – operate alongside national and global determinants, there is an obligation to rethink the way HE is organised, as well as how it is steered, led and managed. Policy, provision, funding and organisation are very different propositions when participation is near-universal. These developments are changing the relationship between HE and the state in very profound ways, and there is unlikely to be a return to the 'golden age'. If I may be controversial, many of the reforms being pursued now are both necessary and inevitable – and arguably late in coming.

Third, HE is part of a wider geopolitical landscape. Universities – and elite universities in particular – along with their students and staff have benefited despite all the controversies around education as an internationally-traded service. The demand for evidence of contribution and impact is arguably a response to its own claims that HE is a driver of the economy – the government and public have simply called their bluff. Clark acknowledged the power of reputation and prestige as defining characteristics, spearheading differentiation within a market-based system but his writings pre-dated the surge in global rankings and their influence on institutional and national policy. As people know, I am a strong critic of rankings; their methodology is unsuitable, the indicators are insufficiently meaningful, and the data is unreliable. This has not stopped rankings from being used and adopted by governments and universities around the world, to maintain and boost their presence internationally. One of the significant outcomes of the rankings discourse – whether we agree with them or not – is that they provide some form of accountability. In so doing, rankings have reframed the way in which HE interacts with its state on the global stage.

Fourth, and finally – to return to the role of HE in society. A big lesson of rankings is the extent to which HE (policy) has become vulnerable to an agenda set by others. Rankings promote the crypto-currency of 'world-classness'; their results and their

advocates promulgate the view that they hold the secret recipe – if only governments and universities would align themselves more closely with the indicators. Success in world-science is usually based upon concentration of talent and resources (Salmi, 2009) but critics argue that such strategies can undermine national economic capacity (Evidence, 2003; Lambert, 2003; Adams and Smith, 2004; Adams and Gurney, 2010), amplifying the benefits of global cities while undermining regional towns, and widening the privilege gap (Goddard, 2013; Cantwell and Taylor, 2013). Pursuit of excellence is measured in terms of achievements of individual universities rather than the system or society collectively; in other words, it promotes world-class universities rather than world-class systems.

For people in developed/OECD countries, the underlying belief was that each generation would be better off than the previous one; that progress was a birth right (Brown et al, 2011). But, at a time when HE is in growing demand, more people feel left behind – struggling to live up to societal and personal expectations.[8] Unequal distribution of societal goods has been accompanied by a perception that the rest of the world is doing better, spurring a deep sense of grievance. We are competing with cities and countries which most of us never knew of, or considered, a few years previously.

Higher education has historically had a close relation with the city and country of its founding but, today, it is considered part of the elite, with campuses viewed as islands of affluence amid 'seas of squalor, violence, and despair' (Harkavey quoted in Boyer, 1996, 19). Colleges that have prided themselves on working across borders of country and culture now find themselves in opposition with governments which want to keep out 'foreigners' (Nichols, 2017). Education and mobility, even within the country, have appeared as fault lines in voting behaviour in the UK (2016), US (2016), France (2017) and elsewhere (e.g. Le Corre, 2017; Inglehart and Norris, 2016; Taub 2016). Many fundamental values of HE – cosmopolitanism, multiculturalism, international collaboration, the free flow of people and ideas, broadly liberal social values, and the pursuit of truth – are perceived as threatening. These deepening social-cultural cleavages help explain the rise of populist social-political reaction – a likely ongoing feature of our societies over the coming decades. Societal problems are not the sole result nor responsibility of HE, but HE's hands are not clean. Disturbingly, many universities have become civically disengaged, to use Putnam's term (2001). They have transformed themselves into self-serving private entities less engaged or committed to their nation/region as they eagerly pursue their world-class position and shout about the public good. The public's interest is being confused with private self-interest. The 'implicit social contract' is in trouble (Calhoun, 2013, 149). This is creating a vacuum, pushing the state, often controversially, to step back in, to (re)assume a strong(er) co-ordinating role to reaffirm 'the public good' by way of national strategies, frameworks and funding mechanisms (Hazelkorn and Gibson, 2017).

We sit at a historic junction (Fukuyama, 2017) – one in which HE has the opportunity and responsibility to play a critical role in (re)building a shared sense of societal purpose and identity. To be effective, it needs to move away from arguments of self-interest and victimhood. It's not just about what happens on campus or grandstanding about what the university does for society. Rather, there is an onus on universities and colleges, of all missions, to rethink and reshape relations with its publics and the state, and to re-orient itself *qua* anchor institutions, alongside its students, staff and graduates, and the wider community, and *qua* an intellectual force to bridge the gap between local, national and global (Goddard et al, 2016). There is no time for complacency.

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Notes

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[2] Other global rankings include, inter alia: *Ranking Iberamericano*, Leiden Ranking (Centre for Science and Technology Studies, University of Leiden), 2008; National Taiwan University Rankings (formerly Performance Ranking of Scientific Papers for Research Universities, HEEACT), 2007; SCImago Journal and Country Rank (SJR) (Spain), 2009; University Ranking by Academic Performance (URAP) (Informatics Institute of Middle East Technical University, Turkey), 2009. System rankings include: QS Higher Education System Strength Rankings and U21 Ranking of National Higher Education Systems.

[3] Thompson Reuters originally established the *Global Institutional Profiles*) http://ip-science.thomsonreuters.com/globalprofilesproject/) in partnership with *THE*; the latter has now gone on to establish its own database which it aims to be the "largest and most comprehensive database of university data in the world" (THE, 2014); *ARWU* has created *Global Research University Profiles* (http://www.shanghairanking.com/grup/), and the EU created the European Tertiary Education Register (ETER) (https://www.eter-project.com). Moody's, and Standards and Poors, use rankings to validate HEI creditworthiness (Hazelkorn, 2015, 199).

[4] This section is influenced by interviews with international organisations and associations conducted under the auspices of the CGHE Global Governance project. The interviewees are anonymous as per the terms of the agreement.

[5] "In China, 2014 saw R&D expenditures reaching the milestones 2% of GDP (the target set in the 2006-2010 plan for 2010). While China's GERD continued to grow very rapidly (+9% in real terms) in 2014, this represented China's lowest GERD growth since 1996. Korea has the world's largest R&D intensity (4.3% in 2014) ahead of Israel (4.1%) for the second year in a row" (OECD, 2017).

[6] Irish government internationalisation strategy deliberately aligns higher education and national economic interests by associating international recruitment and research partnerships with those countries/regions which are potential markets for Irish trade, and home to its growing diaspora – a term coined to refer not to traditional Irish who have emigrated but international students who are graduates of Irish universities and have since returned home (DES, 2010).

[7] IAU = International Association of Universities; EUA = European University Association; ENQA = European Association for Quality Assurance in Higher Education; CHEA = Council of Higher Education Accreditation; INQAHEE = International Network for Quality Assurance Agencies in Higher Education; CIQG= CHEA International Quality Group.

[8] Only 33% of Americans have a bachelors or higher degree (Ryan and Bauman, 2016). In the UK, only 34.4% had achieved NVQ4+ (a degree-level or equivalent qualification or above) (Ball, 2013). Despite our own and the media's fascination

with world-class universities (Nelson, 2014), fewer than 1% of US students attend highly-selective universities such as Harvard and Yale (Casselman, 2016), and only 9% of UK students attend Oxbridge or Russell Group universities (DoE, 2012). There is also huge disparity in graduation rates by economic class; see Carnevale and van der Wef, 2017.