

The emergence of academic capitalism and university neoliberalism: perspectives of Australian higher education leadership

Gwilym Croucher¹ · William B. Lacy²

Accepted: 4 November 2020 / Published online: 21 November 2020 © Springer Nature B.V. 2020

Abstract

Public universities worldwide have incorporated neoliberal behaviours and norms across their activities, moulding organizational practices, processes and cultures. In particular, these changes have been expressed through forms of academic capitalism and increasing 'marketization' of public university activities. A little explored perspective on these changes is that of senior leadership within higher education. This paper addresses this topic by examining how 116 higher education leaders view 32 key issues for the future of Australian higher education in the next 10 to 20 years. Half the participants in this study were university vice-chancellors or presidents or those who were part of their senior leadership team, and the other half were leaders outside universities including government leaders responsible for budgets or policy or those in national academic organizations. Generally, both the university and the non-university leaders of the Australian higher education system perceived nearly all of the issues for its future as at least moderately important. Many traditional academic goals of knowledge generation, dissemination and application were seen as high priorities. Rated among the top ten issues were student learning outcomes and ensuring student accessibility to higher education, as well as addressing the needs of society and research on grand challenges facing humanity, such as climate change and food security. At the same time, higher education leaders viewed most of the issues related to both marketization and academic capitalism as important, including issues of internationalization, the balance between tenured and contract academics, and the role of university-industry joint research. Traditional academic goals appear to be tightly bound to components of marketization and academic capitalism. The leaders' perceptions of the importance, meaning and trajectory of Australian universities suggest core goals of higher education will likely need to continue to be balanced with the emerging neoliberal agendas

Keywords Higher education · Leadership · Management · Governance · Neoliberalism · Managerialism · New public management · Academic capitalism · Marketization

Gwilym Croucher gscrou@unimelb.edu.au

Extended author information available on the last page of the article

Introduction

In recent decades, public universities worldwide have incorporated neoliberal behaviours and norms across their activities. These developments have been so ubiquitous that a transformation may have occurred that has moulded organizational practices, processes and cultures (Busch 2017; Gaffikin and Perry 2009; Levin and Aliyeva 2015; Marginson and Considine 2000; Rhoads and Rhoades 2005). The changes have been expressed in different ways, most particularly in the rise of forms of academic capitalism (Slaughter and Rhoades 2004) and increasing 'marketization' of public university activities (Brown 2011). The emerging transformation has involved market and market-like behaviours from faculty as well as the inculcation of a market ethos (privatization and individualism) through institutions' policies and practices (Taylor 2017). This paper explores a number of these changes associated with the neoliberal evolution by focusing on public higher education senior leaders' perceptions of critical issues for the future of their institutions. The issues examined include both traditional and emerging academic goals for knowledge generation, dissemination and application, infrastructure, resources, human capital and other general issues. Several components of marketization and academic capitalism are included in these examined issues. The importance of these issues and agendas, and higher education leaders' perceived consequences for the future have rarely been studied.

Examining some ways that university leaders perceive these changes, and in particular marketization and academic capitalism, offers insight into their meaning and trajectory. This analysis is especially important given claims that university leadership has become highly attuned to market structures at the expense of the traditional academic goals. It is argued that a commercial focus informs much institutional activity and amplifies competition over resources among institutions. To examine these significant questions, this paper focuses on Australian higher education; a successful, public, homogenous, comprehensive system. The study explores how 116 leaders in Australian universities, national academies and government view key issues for the future of Australian higher education in the next 10 to 20 years. This paper focuses on these leaders' perceptions of the importance of emerging components of marketization and academic capitalism. Australia is small enough that this study is able to capture the views of senior leaders from most of the 39 public universities, as well as a notable proportion of senior higher education leaders outside universities. Half the participants in this study were either university vice-chancellors/presidents, or those who were part of their senior leadership team, and the other half were leaders who were not situated in universities but held positions in the higher education system, including in government (responsible for budgets or policy) or in national institutions (for example, national academies).

Academic capitalism, marketization and universities

Since the 1980s, there has been an ascendency of neoliberal norms for many public institutions, which proponents argue is an apolitical and technical shift, rather than the function of ideology (Harvey 2007). This revolution affects all types of public institutions, from healthcare and hospitals to policing and social support. National and state governments have played a central role in furthering these changes through active interventions. The embrace by governments of market mechanisms has become widespread yet still controversial. Public institutions are viewed as self-maximizing actors in their own right, and for this reason the argument is made that they must not be afforded any exceptionalism where they are not subject to the same norms and rules that are applied to private enterprises. Depending on the national context, this is associated with requiring commercial practices in the operation of public institutions while simultaneously subjecting them to privatization or direct competition from the private businesses, to ensure 'competitive neutrality'. There has been significant change in how governments frame the roles and support of public institutions often enacted as a feature of New Public Management reforms (Hood 1991; Gruening 2001).

State subsidized universities and colleges have been subject to the same pressures as other public institutions, showing particular neoliberal associated change. There are clear examples of forms of academic capitalism and the promotion of competitive and market mechanisms within and between universities and colleges. For universities, as Busch argues, knowledge is now for sale in a modality that has not been seen before. Universities as institutions have been in part reframed and students repositioned (Busch 2017). The ascendance of marketization logic has not occurred in isolation, rather emerging alongside distinct modes of governance and management of universities, and the adoption by public universities of management approaches born in the private sector (Birnbaum 2000).

This has manifest in specific ways through the use of explicit mechanisms that have an organizational expression (e.g. Cantwell 2015). It is now common for internal allocation of resources to express market logics. As part of this, there has been an ongoing shift in administration from secrecy to publicity under the pressure of accountability and efficiency (Rourke and Brooks 1964). Tensions between 'managerial' practices and professional autonomy have escalated through increasingly comprehensive and complex performance metrics (Stromquist 2017; Giroux 2014; Lacy et al. 2014; Kauppinen 2015; Jessop 2017). Since the medieval precursors to the modern university, students have directly purchased their education through fees. Yet, the framing of the student relationship to the university as one of 'consumers' has only become evident in recent times. Treated as consumer first and foremost, the change in anticipation of services and benefits that students must enjoy outside their instruction and training has been another key expression of the marketization of higher education. The widespread expectations of a college 'experience' and explicit concern for return on investment are relatively recent phenomena as is student activism around their individual expectation of private benefit. Universities have embraced commercial logic of education, treating international rankings, such as the Shanghai Ranking's Academic Ranking of World Universities and the Times Higher Education rankings, as a serious concern, especially where they relate to attracting fee paying international students. A commodification of teaching has followed the massification of higher education systems after the long post-Second World War boom (Furedi 2010). Finally, in many countries, higher education is viewed as a key export, and particularly in Australia where it is consistently viewed as the third most important export.

At the national-system level, there are examples of neoliberal changes that have seen a liberalization of 'market entry' to higher education systems. Here, states foster competition for enrollments between public and private universities through explicit policies to ensure the latter is not at a perceived disadvantage (Brown 2011; Marginson 2007: 42). Tuition fees have been introduced or increased in many public systems and in some, such as Australia, can amount to as much as public grants for teaching and education. In many wealthy university systems, there is now widespread use of performance metrics to allocate funding, often using narrow quantitative indicators (Dougherty et al. 2014; Letizia 2016).

There has been a growing marketization of research in universities, where return on investment has come to supersede the development of new knowledge. Collaboration between industry and universities has long been a feature for many countries, particularly in North America in such fields as engineering, chemistry, computer science, agriculture and natural resources. In recent years, those relationships have become: generally more varied; wider in scope; more aggressive, commercial, and experimental; and higher in public visibility as universities pursued what has been referred to as academic entrepreneurship and academic capitalism (Slaughter and Rhoades 2004; Busch and Lacy 1983; Lacy 2020). In the USA, for example, government policies and court decisions led to the widespread establishment of new university technology transfer offices that promoted patenting of the outcomes of federally funded research and drove increases in the number of universities actively engaged in patenting and licensing technologies and discoveries. For example, the Association of University Technology Managers, a global non-profit that represents technology managers at 800 research institutions (80% of which are universities), find that in 2017 members formed 1080 start-ups, issued 7459 patents, signed 7849 licenses and options (the agreements that give companies the right to manufacture a product) and created 755 new products (AUTM, 2020). In addition to stimulating the great expansion of university technology transfer offices, these changes have significantly contributed to new and expanded university-industry relations units, university research parks, innovation campuses, and new organizations to promote and strengthen university-industry collaborations. In many instances, universities are being seen not as a research partner (pursuing new knowledge) but as a commercial entity, holding patents and commercializing intellectual property (Lacy et al. 2014). Monitoring the nature, goals, and outcomes of these relationships is important. As Bok (2003) notes, 'it will take very strong leadership to keep the profit motive from gradually eroding the values on which the welfare and reputation of universities ultimately depend'.

Leadership, neoliberalism and Australian higher education

A central assumption in many of the changes in higher education is the key role played by those in positions of authority. University leaders have a central part in any neoliberal changes that universities have implemented through their capacity to set budgets and internal policy, as well as by the signals they send to faculty and staff about the core ethos of their institution. Even where they are not the prime champions of particular marketoriented processes and practices, they are the facilitators. University leaders are often a central conduit of marketization. Here, the agenda has been driven by a common ethos of funders and regulators that seek to 'steer at a distance' while requiring institutions to be more responsive than in the past to prescribed government agendas. Control over internal resources means their opinion and assessments matter, even where their actions are subject to organizational and legal constraints. Their capacity to publicize institutional approaches and shape norms is a powerful instrument to influence action. By virtue of their leadership position they often have access to a wide variety of information on system level and government policy issues, and are critical informants for the purpose of this study. What leaders think is significant because they are often in a position to have systemwide influence over higher education.

A mobilization of market logics within universities is a paradigmatic shift from earlier models of university administration. Budgeting schemes that borrow a market ethos, such as 'keep what you earn' and 'shared services' arrangements, are now common. At times university leaders have been enthusiastic adopters of organizational prescriptions to bring the market to higher education with their promise of teaching and research efficiencies. Even where leaders have not been champions, they have been compelled to meet government agendas or promote income generating activities that make it unavoidable that their university is a 'market actor', and hence is arranged to accommodate this. Competition for resources, students and prestige frames the supply of higher education as a service along market lines, and those on the front lines must therefore see it that way.

Universities may remain collegial 'communities of scholars', but it is control over resources and structures that determines how these occur in practice. There is evidence that university management's role in shaping institutions intensified during the second half of the twentieth century. In US higher education the practice and ideology of management ('managerialism') has been evident since the 1940s, mirroring the broader 'managerial revolution' in the public sector (Scott and Hart 1991). To differing degrees, universities in the UK and other countries followed the US lead. Gaining greater insight into how university leaders view and understand changes associated with the neoliberal approach is useful therefore to understanding how and why its different modes are expressed. How university leaders—especially vice-chancellors and presidents—view the expressions and importance of the traditional and emerging academic goals of their institutions, as well as of academic capitalism and the marketization of higher education, is significant to its trajectory. It is these roles that have such a strong influence over the operation and character of institutions. Similarly, the views of other higher education leaders outside university management are often equally important in shaping the goals and actions of higher education. They are in a position to influence the operation and ethos of institutions, either directly, as funders and leaders in government, or indirectly, such as leaders within national academies with potential influence over government policy or internal university policy.

Study design

To gain insight into how leaders in universities, national academies and organizations and government view the key changes and critical issues facing their institutions, this study draws on the data from 116 in-depth interviews and 114 follow-up surveys with senior higher education leaders in Australia (see Lacy et al. 2017). The Australian higher education system provides a useful study of these changes given its homogenous character and heavy reliance on public funding. All 39 public Australian universities are comprehensive, offering undergraduate and graduate studies, as well as supporting basic and applied research across the major disciplines and professions. This relative homogeneity is largely a result of the policy architecture established in the late 1980s (Marginson 1993; Croucher et al. 2013). These policy settings, and the resulting institutional character and focus have guided a transformation driven by market principles which have informed universities' approach to learning, teaching, research and outreach (Marginson 1997; Davis 2017; Lacy et al. 2017; Pitman 2016). Many scholars argue that there has been an associated shift away from traditional forms of public service and collegial management to what is termed a 'corporate approach' (e.g. Lafferty and Fleming 2000; Martin-Sardesai et al. 2018; Christopher 2014; Gray 2015).

The origin of many of these changes in Australian universities can be traced back to the 1960s and the adoption of government policy that was expected to improve efficiency, and responsiveness to governmental control (Croucher and Waghorne 2020; Marginson 1997). By the late 1980s, this was reinforced in two notable aspects. First, a change in government policy by education minister John Dawkins introduced competition among universities to obtain grants (Marginson and Considine 2000; Croucher et al. 2013). Second, there were efforts to monitor and align universities' activities to achieve national goals and priorities through the negotiation of their 'educational profile' (Macintyre et al. 2017). Since the 1980s, Australian political leaders have embraced the marketization of universities, first through an extension of the student tuition loans known as HECS, then the introduction of a voucher based public funding system for undergraduate education and most recently through a scheme of 'performance based' government funding for teaching and learning grants (Norton and Cherastidtham 2018).

On an operational level, there has been a growing separation of academic and administrative-management activities in Australian universities. Many financial management responsibilities have been shifted to a 'core' of non-academic professionals divorced from academic structures (Gray 2015; Guthrie and Neumann 2007). Australian universities have adopted internal performance measurement systems in both formal and informal processes and mechanisms, shown prominently through the use of audit techniques for monitoring and resource distribution. University leaders have been enthusiastic in their replication of government funding logics in their internal systems.

Insight into how Australian higher education leaders view marketization is additionally significant given the consequences many have argued have arisen from these changes. Since the 1980s, more academic staff are on short term or session contracts (Ryan et al. 2017; Welch 2016). Implicit gender bias has erected further barriers for female academics preventing their career progression (Lipton 2017) or from entering senior leadership positions (White et al. 2011). Since many of the features of the neoliberal transformation, in particular the increasing marketization, are driven by leadership, understanding how they view the changes is significant for analyzing public higher education's future trajectory.

To generate an appropriate sample of informants for the study, a two-tiered purposeful sampling technique was deployed. The first tier was utilized to select the organizations to be approached, and the second tier was employed to select leaders to be interviewed. A snowball technique was applied during the interviews to identify any additional potential informants. Purposeful sampling here refers to the efforts to ensure that the informants were selected based on their professional experience and expertise. Participants for the study were initially recruited through an approach to all Australian vice-chancellors of public universities to participate in the study, of which 21 of the 39 accepted, as well as an approach to the leaders of organizations listed below. Other participants were then recruited following the initial approach to vice-chancellors/CEOs using chain sampling. The interviews averaged one to two hours and were conducted face-to-face (two were conducted by telephone).

Half the participants in this study were from the senior university leadership group, either university vice-chancellors/presidents, or those who were part of their senior leadership team. There were 21 Presidents/Vice-Chancellors, as well as 45 Deputy and Pro Vice-Chancellors, Vice-Principals and Deans. The other half of the participants were leaders outside universities that were part of the system, including in government (and in charge of budgets or policy), in national institutions (such as the national academies for humanities, social science, science, and engineering), or other non-government organizations. The government respondents included elected leaders in the Australian Parliament, the Australian Research Council, the Australian Office of the Chief Scientist, the Commonwealth Science and Industrial Research Organisation (CSIRO), the Department of the Prime Minister and Cabinet, Department of Education, Department of Industry, Innovation and Science, and the Tertiary Education Quality and Standards Agency (TEQSA). The group of respondents outside university leadership included chief executives of five university representative associations, the Australian Fulbright Foundation, the National Tertiary Educational Union and the International Education Association of Australia, as well as a small number of Australian higher education policy experts.

During the interview, participants were invited to reflect on key issues, challenges and possibilities they perceived for the future of higher education. They were asked open-ended questions about their leadership experiences and their perceptions of the major forces shaping the system and its future. Lacy and colleagues provides a large selection of their insights and observations from the interviews (Lacy et al. 2017). Each respondent completed a survey addressing 32 key issues or components for the future of higher education that included both traditional and emerging research, education and outreach goals, administrative issues and broad general opportunities and challenges (see Table 1).

Issues were selected during the scoping phase of the study to reflect a suite of major changes, components and challenges seen in higher education systems around the world, as well as some specific to Australia. The second author generated the items from preliminary discussions with higher education professors and administrators in Australia, and drawing on his leadership experience in multiple US universities, and active participation in national and global higher education associations. Issues were categorised along the three major university functions of knowledge generation through research and scholarship (7 issues), knowledge dissemination or teaching and learning (8 issues), knowledge application or outreach and engagement (4 issues), issues that transverse all three functions (5 issues), and, finally, key administrative issues and challenges facing the Australian universities (8 issues). To ensure the list represented a comprehensive suite of major issues, interviewees were asked to indicate whether any additions should be made, however, no major additional issues were identified through this process.

To examine where leaders situated marketization and academic capitalism among the suite of issues, a subset of these were identified that often relate directly or indirectly to these neoliberal associated changes. Of the 32 issues/topics, the following related directly or indirectly to marketization: competition for student enrolments; deregulation of tuition fees for public universities; federal government funding; internationalization of universities; international university rankings; philanthropy, advancement and fund raising; student debt; the role of university-industry joint research; universities promoting technology transfer (including patents, start-up companies, licensing); and workforce planning and the balance between tenured, part-time, contract academics. These issues highlight different elements related to the use of quasi-market mechanisms in public higher education, including competition between universities (for student enrolments and in international rankings) and mechanism for securing financial resources (fees for both domestic and international students, student debt, government and private funds), as well as university-industry partnerships, technology transfer and the reliance on part-time and contract academics. Several issues are also associated with components of academic capitalism, specifically: *universi*ties promoting technology transfer; and the role of university-industry joint research. Each of these topics has an entrepreneurial and commercial emphasis.

Following each interview, participants were asked to assess how critical the issues would be for the future of Australian higher education in the next 10 to 20 years by rating each on a 5-level Likert scale with 1=not important, 2=slightly important,

Table 1 Thirty-two issues for the future of Australian higher education (alphabetical order)

Accountability within universities^e Balance between liberal education and professional education^b Competition for student enrolments^b Deregulation of tuition fees for public universities^b Developing and supporting big data research infrastructure^a Developing and supporting interdisciplinary research centers^a Developing and supporting research infrastructure^a Diversity of university missions^e Educational technology and online learning^b Ensuring student accessibility to higher education^b Federal government funding^d Government regulations and standards^d International university rankingse Internationalisation of universities^e Lifelong learning/continuing education^b Partnerships with other organisations^e Philanthropy, advancement and fund raisinge Research on grand challenges facing humanity (e.g. energy, climate change, food security)^a Shared and collegial governance^d State government funding^d Student debtb Student learning outcomes^b Superannuation and pension costs^d Supporting new academic researchers with a start-up research package^a The balance between basic-applied-develop research^a The role of university-industry joint research^a Universities addressing government agendase Universities addressing the needs of societyc Universities contributing to international development^c Universities promoting technology transfer^b University strategic planning^d Workforce planning and the balance between tenured, part-time, contract academics^d

^aGeneration of knowledge

^bDissemination of knowledge

^cApplication of knowledge

^dInfrastructure, human capital, resources and administration

^eGeneral issues encompassing all functions

3 = moderately important, 4 = very important and 5 = extremely important. Examining the mean ratings as well as comparing the mean rank for all issues provides insight into the perceived importance of these issues and an indication of the relative priorities of leaders. Comparing Likert scales (ordinal) using the summated ratings method is a robust approach to systematically examining attitudes (e.g. Norman 2010). Caution needs to be exercised in interpreting results, and there are limits to what can be inferred from the

287

responses. For example, the survey and interviews provide limited scope to systematically assess why particular issues were viewed as important or not. It cannot reveal, for instance, whether a respondent viewed an issue as a problem to be solved or a fruitful opportunity. Nonetheless, through comparing the responses, the survey data does provide an appropriate tool to analyze a wide variety of issues and offers insight into leadership ratings of important issues and priorities. It is a powerful approach to assessing patterns in leadership priorities and foci. Examining the responses offers an overall picture of how leaders situate these wide ranging and diverse issues for Australia higher education, especially those related to academic capitalism and marketization. In this way, the survey provides novel evidence as to the perceived future issues, opportunities and challenges for the future of higher education.

Survey findings

Generally, both the university and the non-university leaders of the Australian higher education system perceived nearly all of the issues for its future as at least moderately important. For university leaders, 31 of the 32 issues or topics were rated 3.08 to 4.60 with over half of the topics rated as very important. A pairwise analysis was conducted for the correlation between how the participants rated each of the 32 issues. A Spearman's ρ (rho) test shows that there was moderate correlation (defined as coefficient between 0.40 and 0.59) for only 3 issue pairs, with weak correlation between all other pairs (with 59% of pairs showing statistical significance).

Table 2 shows how the issues were rated and ranked by this group of university senior executive respondents based on their average mean scores for each item. For those working outside university senior leadership in government roles, in the academic national academies and other organizations, the rating of issues was similar with 30 of the 32 issues rated 3.22 to 4.61, and 13 of the topics rated as very important. This second group ranked the issues in a similar order to the university senior leadership (see Table 3).

Examining the university leaders' responses in more detail revealed that several of the longstanding issues in higher education continued to be seen as very important. The following issues related to accountability in serving students (*student learning outcomes* and *ensuring student accessibility to higher education*) were rated among the top ten issues. Two other highly rated issues which focused on the broader society and communities outside their gates (*addressing the needs of society* and *research on grand challenges facing humanity (e.g. energy, climate change, food security)*) were also among the top ten rated topics. These are issues that have emerged in higher education in many countries. This broadening of the university agenda and increasing complexity of higher education and the global environment likely requires more thoughtful and informed strategic planning which the leaders identified as very important for the future (Table 2, #5, 4.43). Finally, in recognition of the increasing reliance on sophisticated research and educational equipment and technology, the leaders rated as very important and among the top dozen issues *developing and supporting research infrastructure* (Table 2, #11, 4.22) and *educational technology and on-line learning* (Table 2, #12, 4.22).

At the same time and in support of our hypothesis of the emerging neoliberal trends and challenges, the university leaders viewed most of the issues related to both marketization and academic capitalism as important. Federal funding, an issue linked to several of the indicators of neoliberalism, is viewed as very important (Table 2, # 8, 4.38). The

Issue	Rank	Mean	SD
Internationalization of universities	1	4.60	0.68
Student learning outcomes	2	4.49	0.74
Universities addressing the needs of society	3	4.48	0.64
The role of university-industry joint research	4	4.44	0.64
University strategic planning	5	4.43	0.69
Workforce planning and the balance among tenured, part-time, contract academics	6	4.41	0.71
Partnerships with other organisations	7	4.40	0.75
Federal government funding	8	4.38	0.75
Research on grand challenges facing humanity (e.g. energy, climate change, food security)	9	4.35	0.72
Ensuring student accessibility to higher education	10	4.30	0.80
Developing and supporting research infrastructure	11	4.22	0.66
Educational technology and online learning	12	4.22	0.75
Accountability within universities	13	4.17	0.77
Diversity of university missions		4.17	0.64
Developing and supporting big data research infrastructure		4.14	0.78
Competition for student enrolments	16	4.00	0.90
International university rankings	17	4.00	0.98
Universities promoting technology transfer (e.g. patents, start-up companies, licens- ing)	18	3.94	0.76
Universities contributing to international development	19	3.86	0.93
Student debt	20	3.85	0.90
Philanthropy, advancement and fund raising	21	3.83	1.02
Lifelong learning/continuing education	22	3.78	0.79
The balance between basic-applied-develop research	23	3.76	0.93
Developing and supporting interdisciplinary research centres		3.73	0.90
Government regulations and standards	25	3.67	0.97
Deregulation of tuition fees for public universities	26	3.63	1.21
Shared and collegial governance	27	3.48	0.82
Universities addressing government agendas	28	3.44	0.86
Supporting new academic researchers with a start-up research package	29	3.35	0.97
Balance between liberal education and professional education	30	3.27	0.83
State government funding	31	3.08	1.10
Superannuation and pension costs	32	2.56	0.92

Table 2 University leaders perceptions of issues facing the future of Australian higher education

decrease in government funding has led many universities to explore marketization and academic capitalism as strategies for managing their institutions. Four issues reflective of efforts to address reduction of funding were rated extremely or very important and among the top ten issues. That *internationalization* was rated the highest by leaders is perhaps unsurprising given the increasing recognition of its importance for all university functions (Table 2, #1, 4.60). This is particularly the case with undergraduate education of international students, the fees from which help the financial stability of many Australian universities.

Table 3	Leaders outside universities	perceptions of issues	facing the future of	Australian higher education
---------	------------------------------	-----------------------	----------------------	-----------------------------

Issue	Rank	Mean	SD	Sig
Student learning outcomes	1	4.61	0.67	
Internationalization of universities	2	4.59	0.57	
Universities addressing the needs of society	3	4.49	0.64	
University strategic planning	4	4.31	0.76	
Developing and supporting research infrastructure	5	4.27	0.75	
The role of university-industry joint research	6	4.25	0.80	
Partnerships with other organisations	7	4.22	0.73	
Research on grand challenges facing humanity (e.g. energy, climate change, food security)	8	4.16	0.88	
Federal government funding	9	4.02	0.88	*
Accountability within universities	10	4.02	0.84	
Diversity of university missions	11	4.00	0.94	
Developing and supporting big data research infrastructure	12	4.00	0.80	
Workforce planning and the balance between tenured, part-time, contract aca- demics	13	4.00	0.92	*
Educational technology and online learning	14	3.94	0.86	**
Ensuring student accessibility to higher education	15	3.94	0.99	
Universities promoting technology transfer (e.g. patents, start-up companies, licensing)	16	3.94	0.86	
The balance between basic-applied-develop research	17	3.88	0.89	
Developing and supporting interdisciplinary research centres	18	3.84	0.90	
Lifelong learning/continuing education	19	3.82	0.94	
Student debt	20	3.78	0.92	**
Universities contributing to international development	21	3.76	0.96	
Supporting new academic researchers with a start-up research package	22	3.73	0.80	*
Competition for student enrolments	23	3.71	0.92	**
Philanthropy, advancement and fund raising	24	3.71	1.01	
Government regulations and standards	25	3.61	0.96	
International university rankings	26	3.59	1.10	*
Balance between liberal education and professional education	27	3.43	0.94	
Universities addressing government agendas	28	3.29	0.88	
Shared and collegial governance	29	3.27	0.98	
Deregulation of tuition fees for public universities	30	3.22	1.15	*
Superannuation and pension costs	31	2.69	1.01	
State government funding	32	2.67	1.16	

1 = not important, 2 = slightly important, 3 = moderately important, 4 = very important, and 5 = extremely important

*P < 0.05, **P < 0.10 on Mann–Whitney U test

A key issue related to marketization is *workforce planning and the balance between tenured, part-time, contract academics* which was viewed as very important (Table 2, # 6, 4.41). Increasingly, universities around the globe and in Australia are relying on part time, adjunct and temporary contract instructors and research personnel to manage the costs of their human capital. Many analysts predict that this trend is likely to continue. *Competition for student* *enrolments* and *international university rankings* were also rated as very important with means of 4.0 and in the middle of the list.

Similarly, issues often associated with academic capitalism were also rated as very important for the future. Engagement with industry was rated very highly (specifically the *role of university-industry joint research* (Table 2, #4, 4.44). As noted earlier this has been an expanding agenda in many universities globally but comes with both significant opportunities and challenges. Two other issues rated as very important and often related to the neoliberal trends involve the generation of additional resources through intellectual property, patenting and licensing, and the attraction of external funds. However, both these issues ranked lower than other issues (*universities promoting technology transfer*, Table 2, #18, 3.94) and *philanthropy*, *advancement and fund raising* (Table 2, # 21, 3.83). These functions are often more fully developed in higher education institutions in other countries such as the US. This may also reflect different levels of institutional involvement in these activities in Australia at this time.

As noted earlier, the leaders outside universities rated and ranked the issues in a very similar manner to the university leaders with some minor differences. They viewed 30 of the 32 issues as moderately to very important for the future of Australian higher education with *student learning outcomes* and *internationalization of universities* seen as extremely important (Table 3). Nine of the top 10 ranked issues were the same as those of university leadership. Mean scores between the two groups were also very similar. In addition, there was often very little mean score differences among many of the issues with 0.1 or 0.2 differentiating them. A Mann–Whitney U test was conducted for each issue to compare differences between the mean answers of the two groups of leaders (see Table 3). This revealed only five issues where there were slight differences in the perceptions between the two groups of leaders (p < 0.05). The other issues all showed a high degree of alignment. This high degree of alignment was confirmed with a Pearson correlation that shows a significance at p < 0.01, indicating that overall there was a very high degree of agreement between the perceptions of those leaders inside and outside the universities.

One top ten issue that this group ranked several places higher than the university leaders was *developing and supporting research infrastructure*. This reflects the status given to research output by leaders outside the university leadership, which the interviews indicated was a significant concern for leaders across the higher education system (Lacy et al. 2017).

The leaders outside universities also rated several of the issues relating to marketization and academic capitalism as very important with five issues ranked in the top half of the list (*internationalization of universities, the role of university-industry joint research, federal government funding, workforce planning and the balance between tenured, part-time, and contract academics, and universities promoting technology transfer (patents, start-up companies, licensing)*). The issue of *workforce planning and the balance between tenured, part-time, contract academics* was rated lower than the university leaders. This is an unsurprising result given that most were not directly involved in workforce planning in higher education. As with those leaders inside universities, the issue of *Philanthropy, advancement and fund raising* was seen as less critical but still tending toward very important.

Discussion

This study is built on 116 in-depth interviews with Australian higher education leaders both inside and outside institutions. The analysis focused on their perception of the most important issues facing Australian higher education and their institutions in the next 10 to 20 years. Those interviewed and surveyed believed broadly that the sector has performed well in research and education, has played a key role in Australian society, and has often served as a model internationally. As one vice-chancellor observed, 'Australian universities make an incredible contribution to their regions socially, economically, culturally, and intellectually. They are really the heartbeat of our communities in many places in Australia ... [and] actually a vital part of their economy.' (Lacy et al. 2017, 3).

Nearly all the leaders, however, felt there are significant issues facing the sector as it has become increasingly more diverse, complex, financially challenged, and internationally dependent. At the same time, the broad domestic and international contexts in which the sector functions have also experienced major changes. There were important differences between how issues were viewed by the different groups of leaders interviewed but all agreed that major changes are coming. As one academic leader remarked, 'I'm not at all confident that the university or anything like its current form will be here for even 20 years' (Lacy et al. 2017, 3).

Both leaders inside and outside universities rated issues related to the emerging academic capitalism, neoliberalism and marketization of the university as very important for the future of Australian higher education. It appears leaders rated issues of marketization as very important because the Australian university system has been marketized since the 1990s. In particular universities have relied on tuition from students since the introduction of significant student fees in 1989, and more recently from postgraduate students and undergraduate international students. During 2013 and 2014, there was an attempt to remove legislative control on tuition fees for undergraduate students who were Australian citizens, the only major category of students for which fees are still tightly controlled. Much of the public debate in Australia over university education in the last two decades has been dominated by what students pay. It is perhaps counterintuitive then that university leaders rated competition for student enrolments, deregulation of tuition fees and student debt as important issues but in lower rank order in relation to other issues. For all the changes that have led to a greater commodification of higher education, the central elements of financialization are still seen as important but appear to be a slightly lower priority for many university leaders than core goals and issues. In contrast to this, the issue of *federal government funding* was higher ranked, despite this only accounting for less than half the income for Australian universities (Australian Government 2018).

The survey suggests similarly that many of the issues often related to academic capitalism were rated as very important and among the highest rated. *The role of university-industry joint research* and to a lesser extent the *promoting of technology transfer* were both seen as very important issues. While leaders are highly committed to the traditional goals of research and education, the emerging neoliberal agenda is also seen as very important for the future of the Australian system.

A second finding from the survey is the clear alignment between those leaders inside and outside universities. The pairwise comparison of the mean answers confirms that this was the case for almost all issues. That the university and non-university senior leaders generally shared similar perceptions of the major matters facing the future of Australian universities is perhaps to be expected, as leaders both inside and outside universities have overlapping professional environments and cultures, and are subject to normative isomorphic pressures (DiMaggio and Powell 1983). The alignment of ratings and ranking for university leaders and those outside universities around marketization and academic capitalism followed the pattern of broader alignment and a shared perception of the importance of these developments. A demonstrable consistency is unsurprising given the tendency towards isomorphism in Australian higher education (Croucher and Woelert 2016; Marginson and Considine 2000).

The issues where there was a statistical difference (p < 0.05 on a t test) shown in their mean rating score are instructive. That the mean score for *federal government funding* was higher for university leaders than those outside universities is perhaps because in part their role in managing and dependence on those funds. Similarly, *deregulation of tuition fees for public universities* was on average rated as a lower priority by those outside universities. Finally, university leaders rated *workforce planning and the balance between tenured, parttime, contract academics* higher, which may reflect their close attention to the issue of the employment conditions of the workforce in Australia.

Conclusion

This paper has examined Australian higher education leaders' insights and perceptions on key components of and issues facing the future of public university system through a unique dataset that captures a significant portion of its leaders during the study period. The findings suggest that the core academic issues as well as both marketization and academic capitalism are rated as very important by these higher education leaders. The two groups examined for this study, university senior executive and other sector leaders, including government leaders, revealed similar ratings and priorities in the survey. Many of the core missions of Australian universities continue to be viewed as very important but are now tightly bound with the emerging neoliberal agenda and other national and international priorities.

Many of these issues and changes are not unique to Australia. Similarly, US universities are experiencing several of these same issues and developments. A 2016 Chronicle of Higher Education issues on the most critical developments in US higher education in the last 50 years included statements by several national leaders that summarised these developments well. Their perceptions of the most important developments included the broadening of student access, online learning and digital resources, the increasing role of contingent workers particularly in teaching students, and the decrease in public funding. One of the most important developments identified is very succinctly summarized by Adrianna Kezar from the Pullias Center for Higher Education at the University of Southern California: 'Neoliberalism, period. Nothing has created so many changes as this single philosophy... it has turned higher education from a public good into a commodity and private benefit.' As a consequence, colleges and universities are viewed as commercial businesses to be run like commercial businesses with students as consumers, faculty members as employees delivering services to them, and professional managers directing the operation.

Addressing the issues facing the future of Australian universities will require strong leadership throughout the system and country. One of the strengths of the Australian system is the senior leadership itself, revealed by their thoughtful and insightful analyses of the issues facing the sector. Their views and perceptions will be critical. They will be called upon increasingly to balance the challenges of delivering on the core goals of higher education with the emerging neoliberal agenda, to seek additional expertise, to build new partnerships both within and outside the system, and to respond to these challenges in new and creative ways.

References

- AUTM-Association of University Technology Managers. (2020). Sharing Trends and Insights. Washington DC: AUTM Press. https://doi.org/10.1080/14759551.2011.644675
- Australian Government (2018). Higher education financial report. Department of Education.
- Birnbaum, R. (2000). Management fads in higher education: Where they come from, what they do and why they fail. San Francisco: Jossey-Bass.
- Bok, D. (2003). Universities in the marketplace: The commercialization of higher education. USA, Princeton, NJ: Princeton University Press.
- Busch, L., & Lacy, W.B. (1983). Science, Agriculture and the Politics of Research. Boulder, Colorado: Westview Press.
- Busch, L. (2017). Knowledge for sale: The Neoliberal takeover of higher education. Cambridge, Massachusetts: MIT Press.
- Brown, R. (Ed.). (2011). Higher education and the market. New York: Routledge.
- Cantwell, B. (2015). Laboratory management, academic production, and the building blocks of academic capitalism. *Higher Education*, 70(3), 487–502.
- Christopher, J. (2014). Australian public universities: are they practising a corporate approach to governance? Studies in Higher Education, 39(4), 560–573.
- Croucher, G., & Waghorne, J. (2020). Australian universities: A history of common cause. Sydney: UNSW Press.
- Croucher, G., Marginson, S., Norton, A., Wells, J., et al. (2013). *The Dawkins Revolution*. Carlton: Melbourne University Press.
- Croucher, G., & Woelert, P. (2016). Institutional isomorphism and the creation of the unified national system of higher education in Australia: An empirical analysis. *Higher Education*, 71(4), 439–453.
- Davis, G. (2017). The Australian idea of a university. Melbourne University Publishing.
- DiMaggio, P.J., & Powell, W.W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), 147–160.
- Dougherty, K.J., Jones, S.M., Lahr, H., Natow, R.S., Pheatt, L., Reddy, V., et al. (2014). Performance funding for higher education: Forms, origins, impacts, and futures. *The ANNALS of the American Academy* of Political and Social Science, 655(1), 163–184.
- Furedi, F. (2010). Introduction to the marketisation of higher education and the student as consumer. In The Marketisation of Higher Education and the Student as Consumer (pp. 15–22). Routledge.
- Gaffikin, F., & Perry, D.C. (2009). Discourses and strategic Visions: The US research university as an institutional manifestation of neoliberalism in a global era. *American Educational Research Journal*, 46(1), 115–144. https://doi.org/10.3102/0002831208322180
- Giroux, H. (2014). Neoliberalism's war on higher education. Chicago, IL: Haymarket Books.
- Gruening, G. (2001). Origin and theoretical basis of new public management. International Public Management Journal, 4(1), 1–25.
- Gray, S. (2015). Culture clash or ties that bind? What Australian academics think of professional staff. Journal of Higher Education Policy and Management, 37(5), 545–557.
- Guthrie, J., & Neumann, R. (2007). Economic and non-financial performance indicators in universities: The establishment of a performance-driven system for Australian higher education. *Public Management Review*, 9(2), 231–252.
- Harvey, D. (2007). A Brief History of Neoliberalism. USA: Oxford University Press.
- Hood, C. (1991). 'A public management for all seasons. Public Administration, 69(1), 3-19.
- Jessop, B. (2017). "Varieties of academic capitalism and entrepreneurial universities: On past research and three thought experiments." *Higher Education* (On-Line) 73: 853–870. https://doi.org/10.1007/ s10734-017-0120-6.
- Kauppinen, I. (2015). Towards a theory of transnational academic capitalism. British Journal of Sociology of Education, 36(2), 336–353.
- Lacy, W.B., Glenna, L.L., Biscotti, D, Welsh., R., Clancy, K. et al. (2014). The two cultures of science: Implications for university-industry relationships in the U.S. agriculture biotechnology. *Journal of Integrative Agriculture*, 13(2): 455–466.
- Lacy, W.B., Glenna, L.L., Biscotti, D., Welsh, R., Lacy, L.R., et al. (2020). Agricultural biotechnology, academic capitalism, and the two cultures of science. *Journal of Molecular Biology and Biotechnology*, 5(2), 04.
- Lacy, W.B., Croucher, G., Brett, A., Mueller, R. et al. (2017). Australian universities at a crossroads: Insights from their leaders & implications for the future. University of Melbourne Centre for the Study of Higher Education. Melbourne and University of California Center for Studies in Higher Education

- Lafferty, G., & Fleming, J. (2000). The restructuring of academic work in Australia: Power, management and gender. British Journal of Sociology of Education, 21(2), 257–267.
- Letizia, A. (2016). The evolution of control the convergence of neoliberalism and neoconservatism in performance based funding policies. *Critical Education*, 7(2), 1–18.
- Levin, J.S., & Aliyeva, A. (2015). Embedded Neoliberalism within faculty behaviors. *Review of Higher Education*, 38(4), 537–563. https://doi.org/10.1353/rhe.2015.0030
- Lipton, B. (2017). Measures of success: Cruel optimism and the paradox of academic women's participation in Australian higher education. *Higher Education Research & Development*, 36(3), 486–497.
- Macintyre, S., Brett, A., Croucher, G. et al. (2017). No End of a Lesson: Australia's Unified National System of Higher Education. Melbourne University Publishing.
- Marginson, S. (2007). The new higher education landscape: Public and private goods, in global/national/ local settings. In *Prospects of higher education* (pp. 29–77). Brill Sense.
- Marginson, S. (1993). Education and public policy in Australia. Cambridge University Press.
- Marginson, S. (1997). Steering from a distance: Power relations in Australian higher education. *Higher Education*, 34(1), 63–80.
- Marginson, S., & Considine M. (2000). The enterprise university: Power, governance and reinvention in Australia. Cambridge University Press.
- Martin-Sardesai, A., Guthrie, J., Tooley, S., Chaplin, S. et al. (2018). History of research performance measurement systems in the Australian higher education sector. Accounting History, 1032373218768559.
- Norman, G. (2010). Likert scales, levels of measurement and the "laws" of statistics. Advances in health sciences education, 15(5), 625–632.
- Norton, A., & Cherastidtham, I. (2018). Mapping Australian Higher Education 2018. Carlton: Grattan Institute.
- Pitman, T. (2016). The evolution of the student as a customer in Australian higher education: A policy perspective. *The Australian Educational Researcher*, 43(3), 345–359.
- Rhoads, R.A., & Rhoades, G. (2005). Graduate employee unionization as symbol of and challenge to the corporatization of U.S. research universities. *The Journal of Higher Education*, 76(3), 243–275.
- Rourke, F.E., & Brooks, G.E. (1964). The "managerial revolution" in higher education. Administrative Science Quarterly, 154–181
- Ryan, S., Connell, J., Burgess, J., et al. (2017). Casual academics: A new public management paradox. Labour & Industry: A Journal of the Social and Economic Relations of Work, 27(1), 56–72.
- Scott, W.G., & Hart, D.K. (1991). The exhaustion of managerialism. Society, 28(3), 39–48. https://doi. org/10.1007/bf02695594
- Slaughter, S., & Cantwell, B. (2012). Transatlantic moves to the market: The United States and the European Union. *Higher Education*, 63(4), 583–606.
- Slaughter, S., & Rhoades, G. (2004). Academic Capitalism and the New Economy: Markets, State, and Higher Education. JHU Press.
- Stromquist, N.P. (2017). The professoriate: The challenged subject in US higher education. Comparative Education, 53(1), 132–146. https://doi.org/10.1080/03050068.2017.1254975
- Taylor, A. (2017). Perspectives on the university as a business: The corporate management structure, neoliberalism and higher education. *Journal for Critical Education Policy Studies*, 15(1), 108–135.
- Welch, A. (2016). Audit culture and academic production. Higher Education Policy, 29(4), 511-538.
- White, K., Carvalho, T., Riordan, S., et al. (2011). Gender, power and managerialism in universities. Journal of Higher Education Policy and Management, 33(2), 179–188.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Affiliations

Gwilym Croucher¹ · William B. Lacy²

William B. Lacy wblacy@ucdavis.edu

- ¹ Melbourne Centre for the Study of Higher Education, University of Melbourne, Melbourne, Australia
- ² Center for Studies in Higher Education, University of California, Berkeley, USA