Innovating Universities: Technocratic Reform and Beyond

Kereen Reiger, Toni Schofield and Margaret Peters

Abstract This chapter critically examines innovations and 'reforms' in university service provision and their management, focusing on Australia as illustrative of broader global trends associated with the integration of higher education (HE) into the international market economy. We argue that more than the usual economic, technocratic approaches to service innovation are required because of the complexity and unpredictability that characterize the entire field of knowledge-based services. Instead we establish an interdisciplinary social science-based approach drawing from critical organization studies and complexity perspectives. To apply our alternative framing of both the issues and the intellectual tools required for effective analysis, we examine three dimensions of innovation, those in the policy, governance and academic work processes through which Australian universities have been transformed over the last 25 years. Our contribution suggests that dominant approaches to university 'reform' risk diminishing the creativity and critical investigation skills required for these institutions to advance service innovation and emerging forms of society, not just a 'knowledge-based' and 'serviceoriented' economy.

Keywords Higher education • Knowledge services • Organizations • Complexity perspective • Academic work • Governance

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1 Introduction

In Australia, as internationally, policy debates and institutional practice in the higher education (HE) sector are dominated by anxiety about increasing national and local competitiveness in a globalised market. Several innovations in institutional systems of governance, teaching and research have been implemented, contributing to what many refer to as the process of 'reconstructing', 'transforming' or 'radically disrupting' universities (Blackmore et al. 2010; Christensen and Eyring 2011; Harpur 2010). The dominant policy discourse promotes the integration of HE—both the vocational sector and universities—more fully into the commodified world of products and services (e.g. Universities Australia 2012; Ernst and Young 2012). Indeed it is possible to interpret 'innovating' twenty-first century universities in terms of an overdue shedding of medieval collegial structures and values of disinterested pursuit of knowledge—making them instead a crucial part of the post-Fordist knowledge-intensive and technologically driven economy (Mowery and Sampat 2005; Frank and Gabler 2006).

While few accounts of such changes are couched within a 'service innovations' framework, policy makers and academic managers primarily adopt an economic interpretation of the inevitable adjustment of universities. They also express frustration at the resistance towards these developments articulated by many working in the sector. There is thus a serious disconnect between current HE managements and those who react with pessimism to the 'marketization' of universities (e.g. Slaughter and Rhoades 2004; Vidovich and Sleek 2010; Marginson 2013). Academic critics reject the assumption that the HE sector is 'simply another industry' and express deep resentment at governments' and university managers' emphasis on a linear 'techno-productivist' interpretation of the 'services' generated within their complex field of work (Davies 2003; Blackmore et al. 2010). Conceptualizing the universities and academic work so narrowly, they insist, does not do it justice. Indeed, real 'service' to, cost-effectiveness, and innovation in a rapidly changing society is actually *endangered* by current conceptual, policy and implementation strategies which, say the critics, spell the 'death' of universities and are 'killing thinking' (Evans 2004).

In this chapter, we address this disconnect facing university managements by advancing a more complex analysis of both drivers and impacts of change. Going further, we argue that grasping these effectively requires radical revision of theoretical approaches to service innovation. Universities comprise a major social institution that contributes to national well-being as well as economic production. They provide crucial innovative capacity through processes of research inquiry and knowledge dissemination, and through the education of students for both employment and as citizens. More broadly, many academics contribute to civil society through public debate such as on climate science or in supporting social movements as in consumer-driven mental health care. As in much of the rest of the service sector, many of these contributions are intangible and often unrecognized, and the flow of ideas between people and institutions cannot be neatly located in time and space. Calculation of 'outputs'—whether of social or economic value—is therefore a challenge.

We argue here that 'innovating' the services to society that universities provide is indeed essential, but not only because of questions of productivity and efficiency. To respond effectively to the twenty-first century challenges of social and environmental sustainability, and of institutional durability in the face of them, we need to widen our theoretical frame concerning service innovation. Questions of human value and social practice, of managing dynamic system change and considering future directions, have to take centre stage at policy and management levels. As academics within 'innovating universities', a term chosen deliberately to convey a particular sense of time—the continuous present—but also a sense of agency and process, we aim to contribute a new critical social science approach to the study of innovation systems and services innovation scholarship, a field to date largely shaped by economic perspectives.

1.1 Structure

The chapter is organized as follows. In Part 2, we locate our task within relevant theoretical debates on systems of innovation and their application to the service sector within which universities can be located. Here we suggest that most service innovation studies share similar premises and approaches to framing, examining and understanding the field, notwithstanding the debates regarding similarities and differences between industrial and service sectors—the 'assimilation', 'divergence/ demarcation' and 'synthesis/integration' debates (Howells 2000, 2010; Gallouj and Djallel 2010). Like Petit (2010), we argue for the importance of more critical analysis of the intersections between economic changes, long-term cultural processes, and rapid disruptions and local institutional flux characteristic of contemporary societies as well as their economies. Following the lead of critical management and organizations scholars, especially those in health service innovation, we then draw upon the new directions offered by analysis of complex adaptive systems (e.g. Greenhalgh et al. 2004; Stacey and Griffin 2008).

To apply our alternative framing of both the issues and the intellectual tools required for effective analysis, Part 3 then examines three dimensions of innovation in the services generated by universities. First, we consider how such innovation has been framed to date by Australian policy makers and by the institutional stakeholders engaged in designing and driving innovation in the governance and academic work processes. These form the basis of services provided to students and citizens in the wider community. Second, drawing also on the wider HE literature and on our shared experience as participant observers in local Australian universities, we construct a picture of how university innovation is being effected in practice, specifically in relation to institutional governance and change management, and in academic work, not only due to new online teaching technologies but

the intensive auditing of teaching and research. On the basis of the available evidence, it appears that present innovation strategies tend to rely on simplistic, and indeed outdated and linear, understandings of institutional change and of service provision. Recent theoretical work instead stresses that innovation in universities as global systems reflects multiple causes, forms of power and contradictory consequences—all of which play out in different local contexts with varying and often unpredictable results (Bento 2013; Christensen and Eyring 2011; Frank and Gabler 2006).

2 Interpreting Higher Education Within the Service Sector

Authorities like UNESCO and Global University Network of Innovation (GUNI 2007) have argued strongly that the challenge to HE presented by the new twentyfirst century world requires urgent analysis and effective response. However, compared with the other public sector under strain, health care (Greenhalgh et al. 2004; Fitzgerald et al. 2002), there has been little explicit comparison between innovation in service provision in universities and that in other enterprises (Antonelli et al. 2010; Christenson and Eyring 2011; Mowery and Sampat 2005). It has been widely observed that although the service sector of advanced economies has grown rapidly in recent decades to over two-thirds of the total production systems, it has remained the 'poor relation' in academic research and theorizing which is still dominated by the manufacturing and other technological fields which generate many services (Gallouj and Djellal 2010). In reviewing the service innovation field, Howells (2010, pp. 69–72) points out that in developing from a 'technologist' industrial production approach to an emphasis on the distinctive value of service industries in terms of intangible 'products' and the importance of knowledge and networks, the study of services needs to be informed by more connection with other relevant approaches. Others also acknowledge that a degree of over-specialization has produced a silo effect in service innovation research (Gallouj and Djellal 2010; Gallouj and Savona 2009). The disciplinary concerns of economics continue to dominate the theoretical framing of change in HE as in many other areas of service innovation (e.g. Gallouj and Djellal 2010). In our view, further integration with other interdisciplinary studies of work, organizations and services would greatly enhance the field.

2.1 Linear-Technocratic Framing and Beyond

Placing universities within analysis of service sector innovation offers an opportunity to develop a critical assessment of the dominant framework and development of an alternative lens. To this end, we follow an increasing number of scholars turning away from theories based on rational-technical or technocratic, and productivist assumptions and instead emphasize the complexity and relational character of human as well as natural systems. In brief, as Figs. 1 and 2 summarize, in seeking to understand and explain service innovations, as other areas of scientific investigation, we are also concerned with questions of *ontology*, or theories of being (what is there to be studied?); epistemology, or ways of knowing (how can we gain access to the world?); and *methodology* (how can we go about research in practice?). At least until the ascent of complexity and related theories in recent decades, scientific investigation of the natural world stressed that reality was 'out there' to be 'found out about' by a disinterested or objective observer, whose observations or measurements could be replicated by another similar observer. Social reality, such as systems of innovation, is of course different. They are socially constructed over time by human agents whose values and practices become embedded over time not just in *material* reality (e.g. hospital buildings) but in the ways in which institutions are organized and managed. Debates over ontology have significant implications for epistemology and methodology, that is our capacity to know about and investigate the human, social world as well as natural systems. On the assumption that human life is explainable through general patterns or law-like regularities, positivist economic and social scientists see the investigator as neutral and dispassionate. They do not acknowledge the involvement, including emotional dimensions, of inquiry. The process of 'knowing' is understood as gathering as much factual/measurable/ observable evidence as practicable in order to develop rational, predictive models.

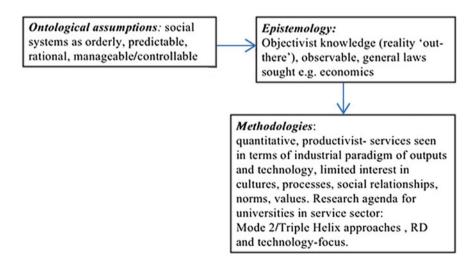


Fig. 1 Linear-technocratic framing

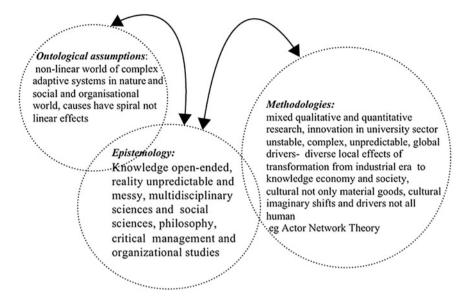
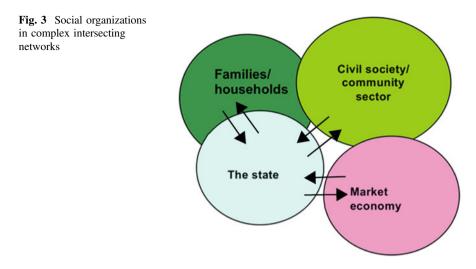


Fig. 2 Synthesis-complexity framing

2.2 Complexity Perspectives

Alternative theoretical perspectives on organizations and workplaces use concepts drawn from the field known as complexity science as well as organizational theories in which change management is recognised to be primarily a relational and cultural exercise (Reiger et al. 2008; Weick 1995). As recent excellent overviews of complexity theories and their relevance to innovation studies point out (Frenken 2006; Goldstein 2008), 'complexity' involves a diverse array of concepts rather than a coherent 'theory'. Complexity approaches have developed as an interdisciplinary endeavour, moving from biological to social systems, and share rejection of positivist frameworks. These still linger however: Frenken (2006) for example reviews the use of complexity approaches in a range of studies of technological innovation but retains a mechanistic approach rather than interpreting them in their organizational contexts as living systems. Several social theorists have now extended complexity theory's emphasis on fluid intersections between non-linear, open systems at multiple levels to make sense of the rapid social changes of late modern society (e.g. Cilliers 2005). Interpreting societies in this way produces an emphasis on how the social, economic and biological dynamics of human life, of our very being, are interwoven. Complex forms of social as well as biological life are hard to even begin to untangle conceptually and practically, but recurrent patterns ("attractors") can often be discerned.

As developed especially at the University of Hertfordshire Business School by Stacey and Griffin (2005, 2008), this fundamental conceptual shift means moving



away from management and economic models which portray organizations and institutions in which action is rational, predictable, and thus able to be directed in a linear fashion (Mowles 2012). Rather, as Fig. 2 suggests, interdisciplinary complexity perspectives stress the essential *nonlinearity* of change in 'complex adaptive systems' and the capacity for radical transformation even from seemingly small 'causes'. Even before the interest in complexity concepts, many social theorists conceptualized the world in terms of dynamic intersections between its major fields —economy, state, civil society and families/households—pointing to the mobilization of power and material resources in the process (e.g. Weber 1921–1923/1978; Bourdieu 1977). As Fig. 3 suggests, not only services but social changes flow regularly and often unpredictably from one field to another, changes in family size or use of new technologies, for example (Reiger 1985).

Which field we prioritize or bring to the foreground for analysis varies according to our objective. Unfortunately, however, the legacy of Adam Smith continues to shape the dominant paradigm for thinking about service innovations as much else. As feminist theorists like Waring (1988) and Folbre (2001) have argued, mainstream economists have largely neglected the *care* and *relational* labour that is society's 'invisible heart'. By taking market relations as the normative paradigm for all of social life, they foreground that lens rather than seeing markets as constantly in fluid exchanges with other sectors.

Using complexity and related ideas to understand the transformation and future of universities offers considerable promise (Goldstein 2008; Mason 2008; Tosey 2002). Some education authorities have already moved in the 'complexity' direction. The 1990s UNESCO initiatives which supported the European 'Bologna process' of networking and course standardization—seemingly rational-technocratic strategies—were also influenced by the complexity perspective offered by French philosopher Morin's (1999) writings on education for the future (GUNI 2007).

Although a much younger scholar, Bento (2013), does not cite Morin, he has amply demonstrated the value of a complexity frame for empirical work on university leadership, innovation and organizational change. Bento's research in Norway and the US suggests that the response of academic leaders to current political-economic pressures is far from optimal in terms of innovating the university system. By merely resisting and/or accommodating intensifying managerialist demands, the real task of necessary innovation remains elusive. Similarly, in Innovating Universities, Christensen and Eyring (2011), warn of neglecting the centrality of complex social relationships and cultural factors. In view of state and public reputation factors and internal power issues, they argue that technologically innovating processes-notably what Christensen terms the 'disruptive' innovation of new ICTs-do not work in same way in the complex sphere of HE as in other industries. Although the vital national importance of university research cultures and productivity as an economic asset has been acknowledged, such as by the US Committee on Research Universities et al. (2012) and Universities Australia (2012) greater understanding of change processes in HE is urgently needed (Kirkby and Reiger forthcoming). In the following sections, therefore, we use this brief outline of an alternative to the dominant linear technocratic understandings of service innovation in universities to examine how the shifts in Australian policy developments and in governance and work practices in universities impact on professional and academic workforces, often it seems, with unanticipated and contradictory outcomes.

3 Innovating Australian Higher Education in Practice

3.1 Policy Directions

Many HE researchers have now established that developments such as the increasing availability of online knowledge, emerging digital technologies, the shift from an elite to a mass model of HE, competing markets for students and funding, and the push to align universities with industry are all significant drivers of university change in Australia and elsewhere (Anderson 2006; Marginson and Considine 2000; Olssen and Peters 2005; Vidovich and Sleek 2010). In particular, Commonwealth Government policy on HE and university governance processes have played a critical role in advancing the project of innovating universities in Australia over the last 25 years. These institutional processes-fundamental in defining and legitimating such a transformation-have adopted and enacted a specific approach to university innovation that has drawn on the principles and practices of rationalist, technocratic management. Such an approach is not new. Some suggest that it developed as part of the tide of rationalization that shaped public sector management in the twentieth century, particularly after the Second World War, and that technocracy is the 'quintessential rationalization of government itself' (Christensen and Laegrid 2007, p. 223). Others recognize that while such an approach has been with

us for some time, in the public governance of Anglo democracies it has developed a distinctive character since Reaganite and Thatcherite policies were unleashed in the US and the UK respectively in the 1980s (Davies 2003, p. 91). Variously described as neoliberalism and the New Public Management (NPM) (Olssen and Peters 2005, pp. 313–316, 322) or new managerialism and Total Quality Management (Davies 2003, p. 91), one of its distinctive features is that 'needs formerly met by public agencies on a principle of citizen rights, ... are now increasingly likely to be met by companies selling services in a market' (Connell et al. 2009, p. 330). At the same time, public agencies that continue to provide services, do so increasingly on the basis of market imperatives.

As in the UK, Australian policy makers have offered only a limited framing of responses to the challenges of the emerging global and national 'knowledge economy' of the twenty-first century. Demands that universities enhance productivity and use new technologies to innovate their internal services and management have been pervasive. First, the Dawkins White Paper (1998) generated rapid and major restructuring of the sector and the introduction of a 'pseudo-market' through the introduction of student fees but also loans (Marginson and Considine 2000). Second, the ongoing process of what critics call 'marketization' has involved redefining the core role of HE as the private acquisition of economic goods rather than as services that also contribute to civil society, that is their 'public good' value (Marginson 2013). In spite of different emphases and strategies across a range of related policy formulations which space limits discussion of here (e.g. West 1998; Bradley 2008), dominant policy discourses have continued to construct the deployment of 'innovation' in the HE sector in overwhelmingly economic terms—a "means to increase productivity and drive economic growth" (Carr 2009).

State policies direct funding and institutional allocation of students, in a now deregulated market, but the question of what innovations are desirable for the users of university services has not been widely considered-at least other than in commercial or industrial contexts. Students' demands for better teaching were part of the initial moves in the 1970s towards quality improvement in HE, and increased social diversity has generated new measures of equity. Yet students are mostly seen as future workers rather than as citizens-such as in the recent Universities Australia paper, Smarter Australia (2012). For example a recent influential and colourful paper, University of the Future: a 1,000 year old industry on the cusp of change (Ernst and Young 2012), prepared by international accountancy consultants, lacks research evidence or conceptual sophistication. Using a purely economic lens, it constructs the key role of universities as educating 'our leaders and entrepreneurs of the future', creating 'new ideas and knowledge' (in the interest of economic growth), and earning 'much needed export income' (Ernst and Young 2012, p. 4). The word 'economy' and similar-'emerging markets' for example-commonly replaces consideration of 'society'. However, the unfortunate consequence of reducing all the complexity of tangible and intangible services provided by the university sector to narrow market value, is a self-fulfilling prophecy. If social recognition and valuing of universities as a 'public good' declines further, the

unwanted outcome is that community and hence tax-payers' and politicians' support diminishes. Hence Christensen and Eyring (2011) argue that contemporary attempts to overly homogenize and corporatize universities are inappropriate as innovation efforts because they fail to recognize that the fundamental 'DNA' of universities lies elsewhere—in academic staff, and institutional memory and buildings, and in local traditions which revolve around 'the critical jobs of discovering new knowledge, preserving the discoveries of the past, and mentoring the rising generation' (2011, p. 332).

3.2 Remaking University Governance

Empirical research exploring the impact on changing practices in Australian universities of the neoliberal policy reforms mandated by recent governments has not vet been extensive. From the considerable critical analysis of the patterns of shifting power relations however, and our own experiences as academics in markedly different institutions, it is possible to establish the complex dynamics at work as universities struggle to adapt to new forms of service delivery and organization. Carnegie and Tuck (2010) have argued that universities display three forms of governance: academic, business and corporate. Academic governance, they suggest, which used to lie at the heart of the system, was traditionally the preserve of academic boards. Dominated by the professoriate, these focused on a university's originality of research, scholarly reputation, and educational preparation of students --- "the core intellectual functions of a university" (2010, p. 436). As this focus has shifted to business and corporate governance, power hierarchies have taken new forms. Access to university decision-making was democratized during the rapid expansion of the HE sector in the 1960-1970s, including some student representation, but such collegiate forms of governance have increasingly been phased out or rendered irrelevant. Replaced by a hierarchical corporate model, the political goals of competition and widening educational access are being implemented through 'top-down' management strategies and goals, with unanticipated as well as desired results (Blackman et al. 2009; Marginson and Considine 2000).

Although academic boards are still formally positioned by their terms of reference as 'the principal policy-making and advisory board on all matters relating to and affecting a university's teaching, research and educational programs' (Dooley 2007, p. 25), they have lost authority. Much of their activity has become confined to determining and overseeing policy and procedures to obtain consistency and compliance in day-to-day operational matters. In many universities, academic boards are increasingly perceived as regulators, not innovators. The opportunity for dialogue, debate and innovative thinking among board members and the wider academic community regarding institutional directions has diminished: setting strategic directions in research and in teaching has become almost entirely the preserve of increasingly narrow senior management groups (Brennan 2010; Zipin 2010; Vilkinas and Peters 2013). At the administrative level universities', in response to government policy mandates, regulatory functions which had been located within the Vice Chancellor's office and universities' business/finance units have moved into far greater prominence in terms of overall institutional governance. Performance measurements, management of income generation, resource utilization and risk management are now at the forefront of managerial concern. Responsibilities that were normally the province of general administration units, such as ensuring internal accountability and protecting organizational resources, have also expanded and been elevated to the purview and control of senior management with a corresponding increase in the number and power of such managers to perform the work required (Trowler 2008; Zipin 2010).

Further exacerbating the trend towards narrow input into decision-making, many of the university committee structures that had facilitated staff participation in decision-making are also being gradually abolished (Bolden et al. 2009). Some are being sidelined or rivalled by 'shadow' entities offering less transparency and direct scrutiny, ranging from internal administrative units to short-term 'co-operative research centres' connected to external industry partners. These offer innovative potential but can readily be marginalized rather than enhancing institutional learning. In spite of being increasingly excluded from broader strategic decision making processes (Bradshaw and Fredette 2009; Brennan 2010; Rowlands 2012), key decision makers within universities, such as academic boards and their subcommittees, along with executive deans and discipline or department heads, are now held more directly accountable for research, teaching and learning outcomes. These internal institutional developments are driven by new external reporting imperatives imposed by such agencies as the Australian Qualifications Framework (AQF) and, more recently, the Tertiary Education Quality and Standards Agency (TEQSA). Meeting their escalating auditing demands poses significant challenges for academic governance, leadership, and management (Blackman and Kennedy 2009; Vilkinas and Peters 2012, 2013). As administrative time and technological resources compete with the needs of teaching and research, internal competition intensifies.

Although the move to a business model of university governance allegedly allows for swifter and more efficient responses to such external drivers (Bento 2013), several problems associated with increasingly top–down decision-making are therefore apparent and threaten to undermine effective institutional governance in the longer term. Dispensing with collegiate governance in favour of technocratic management offers greater institutional control over academic work and the workforce (see below) and, in turn, an enhanced responsiveness to volatile market demands. Yet it also generates cynicism and the demoralization of committed academic leaders who bear the brunt of staff frustration with escalating bureaucratic demands. External drivers directly impact on the roles of faculty/divisional deans and heads of schools who are expected to grow student load at undergraduate, post graduate and higher degree levels, recruit more fee paying international students, reduce the number of small (costly) courses, provide courses simultaneously offered

on-line and in mixed mode, maintain high student satisfaction levels with their courses, and generate jobs for graduates. The market-driven competitive pressures on universities mean that sustainability of courses, academics' continuing positions, and sometimes the viability of whole departments, have become subject to the operationalization of a business model of governance at the level of faculties or divisions. New forms of electronic communication through e-bulletins and interactional sites concerning teaching and learning and organizational change initiatives have brought innovation but are no substitute for collegial debate. In the absence of feeling, they can have impact into strategic decisions such as closure of programs or campuses, staff cynicism mounts and morale and trust diminishes. As Stacey (2010) points out, the policy implementation journey is not usually either linear or uncontested.

It is unsurprising then that a growing body of empirical evidence (e.g. Andersen et al. 2000; Blackmore et al. 2010; Fredman and Doughney 2011) provides disturbing accounts of academic work conditions and practices since the introduction of market-based governance models. While collegial models of academic governance and organizational culture can, and sometimes successfully do, prove resistant to corporate-technocratic approaches to management, they do so in complex and contradictory ways. As Bento's (2013) research in Norway and the US indicates, in the process of being lived out in the daily lives of academics and university managers, networks and disciplinary allegiances shape responses to top-down diktats. Clegg and his colleagues claim that organizational members can "exercise freedom in choosing, resisting, rejecting, undermining, accepting, imposing, extending, beguiling, and questioning power" (Clegg et al. 2006, p. 403). But how do the academic members of university organizations make sense of and negotiate these new managerial 'realities'? What impact are corporate and technocratic modes of 'innovation' having on their work, that is, of generating new knowledge and providing knowledge-based services to students, the professions, commerce and industry and, importantly, to the wider community of citizens?

3.3 Linear-Technocratic Innovation and Academic Work

University service innovations have been nowhere more seismic in effect than at the 'chalk face'—in the working conditions and practices of the academic workforce. The following discussion examines the main 'innovations' or 'reforms' that have been introduced in relation to these conditions and practices, and the challenges they pose. We argue that research and teaching innovations have much to commend them if they can genuinely improve the quality of services, especially those that advance goals fundamental to democratic participation and social sustainability. This however requires a wider frame of reference than apparent in implementation in contemporary Australian universities.

3.3.1 De-professionalization and Effacement of Academic Autonomy

The most dramatic innovation in the working lives of Australian academicsshared also by their British counterparts (Olssen and Peters 2005)-has been erosion in their autonomy (Blackmore et al. 2010, p. 7; Lyons and Ingersoll 2010; Vidovich and Sleek 2010). One of the hallmarks of professional work more generally, autonomy is usually associated with control over the design, execution and appraisal of one's work (Noordegraaf 2007, pp. 767-768). Academic work, with long but flexible hours, involves considerable discipline and surveillance of the self (Davies 2003; Anderson 2006). Autonomy operates both at an individual and collective level, the latter mainly evident in peer assessment and evaluation. Academic work also offers an opportunity for engagement in creative and critical intellectual production that yields a range of dividends, not least of which is considerable work satisfaction (Fredman and Doughney 2011). However, it is now evident that recent organizational innovations have seriously curtailed academic autonomy and de-professionalized academic work both in teaching and research, seriously threatening intellectual productivity. They also involve dramatically increased middle management—usually at faculty or divisional level, often drawing successful and committed academics away from teaching and research and limiting collegial relationships with peers. Close supervision of academic teaching and research performance, particularly with respect to outcomes, outputs, and so on has become a new normative expectation within HE (Olssen and Peters 2005; Fredman and Doughney 2011; Blackmore et al. 2010, p. 7). As Davies (2003, pp. 92–93) suggests, this new calculus of academic work has worrying implications. Its 'multiplied gaze'-an insidious surveillance-provokes profound anxiety and a prevailing sense of personal worthlessness and distrust within the institution. These threaten to diminish commitment and capacity for innovative and critical thinking.

3.3.2 Work Intensification and Workload

Greater surveillance of academic work is typically enacted by engaging academics in more intense *administration* related to their own and colleagues' research and teaching performance. Regular "performance and development reviews" commonly entail individual completion of a standardized online form about one's teaching and research goals and plans, achievements and failures, barriers to progress and identification of requirements for overcoming them. Completion and submission of the form to middle management then generally entails formalized and documented "mentoring" by an academic superior, usually a member of the professoriate. While this recent innovation offers the possibility of genuine support and professional development, the mentor need not even share the same or similar academic disciplinary background, and thus lack knowledge of and interest in the relevant field: instead, just 'going through the motions' of the competitive, technocratic system. As others have argued cogently (Bento 2013; Blackmore and Kandiko 2012), academic work is shaped in fundamental ways by 'disciplinary tribes', knowledge networks that go across institutions and are often personally based, such as due to previous shared study or supervision relationships. By contrast, standardized performance reviews routinely involve the application of a metrics for individual academic performance and specific recommendations for improvement to be assessed by independent arbiters in the following year. Failure to address unsatisfactory performance as measured by increasingly narrow criteria can certainly curtail promotion prospects and lead to the termination of employment, contrary to traditional academic expectations of tenure and protection of academics' professional autonomy.

Academics are "assisted" to complete such performance audits (Blackmore et al. 2010) through the establishment of standardized research and teaching performance criteria, usually by senior management at faculty or divisional level. This may or may not involve consultation with academic staff. Research performance criteria are directly influenced by the Australian Government's system of allocating financial rewards to the HE sector as it has developed since the 1990s. Performance measures include the annual number of publications for an individual staff member-preferably peer reviewed journal articles in the physical and biomedical sciences which have provided the basis for the model. Books and book chapters along with articles have traditionally been more highly valued in the humanities and social sciences, but peer reviewed journal articles are privileged by the new regime (Blackmore 2010). By contrast, the contributions of public intellectuals to community debate, and thus the public good, are ignored. The ranking of scholarly journals by discipline and "impact factor" is widely adopted to assess academic research performance, increasingly benchmarked in the light of international competition (Marginson 2010, 2013). Success in attracting research funding through competitive grants is a further major indicator of satisfactory performance. Unsuccessful research grant submissions by academic staff may be recognized as an indicator of research performance because of the 'grant writing capital' acquired, but, like much service sector work, this is difficult to quantify. As recognition is subject to middle managers perceiving it as consistent with the goals of senior management (Brennan 2010), innovation and critical thinking can be discouraged.

Teaching performance is also increasingly monitored closely through a variety of evaluation techniques. Again, support for introducing innovations and improving the quality of teaching and learning are admirable objectives but standardized measures, such as the questionnaires that academics are now routinely directed to distribute to their students for completion, are not necessarily the optimal strategy (Marginson 2010). Specific features of academic teaching practice are outlined in the questionnaire and scored on a scale from one to five according to students' responses. These scores are then aggregated and statistically processed to determine an overall rating of one's teaching performance. It is widely recognized by academics themselves, however, that qualitative feedback from students, through openended written responses and verbally through group discussion, is much more valuable as effective feedback to assist quality improvement. Exclusive reliance on standardized student evaluations of teaching is inadequate, unreliable and distorts intrinsically variable and dynamic processes (Hattie and Timberley 2007).

Nonetheless such limited standardizing measures now carry considerable weight in performance reviews for academics' salary increases and promotion.

In spite of the ostensible quality improvement goals of the audit system, it relies largely on an inappropriate, or at least limited, productivist and competitive logic which limits capacity for innovative thinking and constructive working relationships. The escalation in institutional surveillance through performance management of academic work and in the concomitant administration required also imposes major constraints on the time academic workers have available for research, even though the pressures to 'perform' it have intensified significantly (Blackmore et al. 2010, p. 7). As a number of international studies have disclosed, the opportunity to conduct research and publish findings from it is one of the main attractions of academic employment (Anderson 2006; Bryson 2004; Clegg 2008), and was traditionally seen as driving optimal teaching. Recent research suggests that "the common belief that research and teaching are intertwined" is now but "an enduring myth" (Hattie and Marsh 1996, p. 529). Academics report frustration at the reduction of teaching quality that results, and having to make up for time lost in administration by devoting more of their supposed "leisure time" to research (Anderson 2006; Fredman and Doughney 2011). Yet this trend towards the intensification of work is also resented by many academics because it is perceived as being driven by a market-based or business agenda unrelated to pedagogic goals or genuine knowledge advancement. For some, it seems antithetical to the advancement of critical and creative inquiry and scholarship (Anderson 2006; Fredman and Doughney 2011). Academic morale and work satisfaction in Australia and Britain-among the lowest in the world according to recent reports (Coates et al. 2009)—have been directly linked to the imposition and monitoring of narrow performance criteria and the increased administrative workload associated with it.

3.3.3 Marketizing Teaching and Learning

Academic discontent over workload however also reflects the impact of the extension of HE to an ever-wider array of students (Bryson 2004). Increased student numbers but diminishing relative resources have accompanied the marketization of such provision over the last 25 years or so in Australia and Britain (Marginson 2013), with student-staff ratios deteriorating significantly as a result (Fredman and Doughney 2011, p. 43). In some cases, this has meant an absolute increase in the hours of face-to-face teaching with no appreciable rise in class sizes, while in others it has meant both increased teaching hours and class sizes. Some classes, even at first-year level, are now only available every second week of semester, resulting in less support for students and deterioration in the quality of interaction between students as well. Even so, academic working hours have risen decisively (Fredman and Doughney 2011, p. 43). Combined with a greater "muscularity" of university management style (Anderson 2006, p. 578) in scrutinizing academic teaching and research performance, and government funding cutbacks—both in the 1990–2000s and the projected future—this innovation in university service provision basically demands that academics must do more with less. Such developments have extremely worrying implications for the quality of teaching and learning (Skolnik 2010). Not only do they affect development of students as competent to assume chosen careers, but importantly, the competencies required for social and political participation and social sustainability (Nordensvard 2011).

Marketized innovation of university service provision has transformed the relationship between students and academic teachers to one in which students are constructed as consumers and academics as service providers (Maringe 2011; Nordensvard 2011). With the monitoring of teaching performance now depending in large measure on student evaluations of teaching, such evaluations tend to operate as 'consumer satisfaction' surveys and have begun to operate as the tail wagging the dog. Academics' pedagogical choices regarding course content are heavily influenced by these evaluations because of their significance to their performance reviews. As they are competing with a media savvy youth market, academics can find themselves adopting teaching methods that might seem innovative and engaging to students but can be pedagogically spurious. Just as significantly, in the marketization of the student-teacher relationship and the conversion of the student citizen to student consumer, the opportunities for learning to advance intellectual competencies for social and political participation, and in turn the development of social sustainability, are seriously circumscribed (Maringe 2011; Nordensvard 2011, pp. 158–166).

3.3.4 Increased Standardization of Teaching and Research

In teaching, university service innovations have involved increasing standardization in the design, delivery and evaluation of courses (Marginson 2010), especially in undergraduate programs that are aggressively marketed-both domestically and overseas. The demand for individual courses to conform to a brand template has escalated and teaching methods and delivery of courses are now characterized by greater standardization. This can of course make for better standards, but there is less opportunity for materials to express a lecturer's innovation or ingenuity. Greater use of lectures and larger tutorial groups (of 20 or more students) is common, decreasing opportunities for individual student expression and productive interaction. Standardization in teaching also limits forms of student assessment and feedback even though the latter is essential to effective learning (Hattie and Timperley 2007). Exams prevail over essays because they do not require written individual feedback; multiple choice tests prevail over essay-based exams because they can be marked mechanically and are often provided as an accompaniment to particular texts if academics prescribe them for their students; and standardized discussion and essay questions are more routinely adopted along with model responses. Academic staff members are encouraged to adopt marking rubrics instead of giving individually "customized" comments. Thus in the interest of supposedly standardizing the quality of teaching and learning, what is personal, the relational aspects of teacher-learner interactions, is undervalued, unrecognized and thus diminished (Christenson and Eyring 2011, pp. 336–337).

Academic research is also under increasing pressure of standardization with the relentless drive to measure and evaluate academic performance (Marginson 2010). The adequacy of an academic contribution to research has to be able to measured and according to a narrow range of categories: grants, peer reviewed journal articles, chapters and books published by commercial organizations, and peer reviewed published conference papers. Research grant success in the most competitive schemes is also generally contingent on strict conformity to prescribed criteria in formulating research proposals and demonstrating the significance of the research, even prior to undertaking it!

3.3.5 Casualization and Flexibilization

Clearly, these innovations in academic work practices permit managers to exercise more power in pursuing and achieving their objectives as marketized service providers. The flexibilization of the workforce—or the transformation of a predominantly permanent pool of academic employees (either full-time or part-time) to one in which employment is increasingly offered on a casual or contract basis—allows university managements to respond more nimbly to HE market variations in demand for courses and also significantly reduces labour costs. One of the most pernicious consequences for academic work, and for innovative practices in particular, is the casualization of the workforce and the creation of precarious academic employment. Along with the narrowing of governance structures, the dominance of technocratic-corporate employment and linear, top-down management practices preclude involvement by academics in regulating and managing their employment contracts and workload in transparent and equitable ways. Just as significantly, such principles and practices impede the stability and continuity of access by students to what is arguably the most critical resource required in university teaching and learning—academic guidance and feedback. For contract and casual staff, once their contract has terminated-often before student assignments and results are returned -they are no longer available to provide either to students. The expansion of online teaching in HE-much vaunted by university service innovators but too complex for detailed review here—has contributed greatly to the casualization of the academic workforce. While the research and evaluation of the efficacy of online teaching and learning suggests that it generally equals face-to-face student learning in terms of measurable outcomes, this is not so for all. In spite of the good intent of access and equity programs, a significant proportion of low-income and minority group students find that online courses pose significant challenges to their sustained participation and achievement in HE (Jaggars and Bailey 2010, p. 11). In this as many other aspects of the transformation of university service provision documents in the literature, complex contradictions and unanticipated as well as planned results abound.

4 Conclusion

4.1 Beyond Corporate-Technocratic Management?

The rapidity of change in the postindustrial global world of the 'new economy' and the centrality of knowledge within it demands that university service providers both recognize and understand the changes and respond to them in ways that shape future trajectories effectively. In this chapter, we have argued that, as in the past, more than economic tools are required because of the complexity and unpredictability that characterize the entire field of knowledge-based services. In view of the perspective advanced here, top–down, linear-technocratic approaches focused on market imperatives are clearly inadequate to the challenges. Importantly, we believe that the over-emphasis on 'adjusting' the university as a 'service industry' to late modern times risks 'killing the goose that lays the golden egg'—that is the creativity, critical investigation skills, innovation and dissemination of new knowledge required for universities to contribute not just to a 'knowledge-based' and 'service-oriented' *economy* but to emerging new forms of *society*.

Innovations and service innovations literature, like that on universities, is extensive though often self-referential. On the basis of the interdisciplinary but social science based complexity perspective argued for here, we would encourage HE authorities to consider the innovative alternatives available in many profitable, 'high performing' organizations and documented by leading change management experts, notably those using complexity perspectives (Stacey 2007; Mowles 2012). By contrast with the dominant approach we have identified and discussed in this chapter, research into many innovative services and companies reveals recurrent themes. Attention by management to change processes and culture is essential along with recognition of skilled staff as an organization's greatest resource. So, too, is recognition that social relationships within institutional settings are a key factor affecting productivity and financial viability, and that bringing employees into decision-making strengthens the organization. Moreover effective leadershiprather than just 'management'-is central to negotiating change in productive ways. A significant British report on excellence in innovation which reviewed leading companies' practices (BNI/Qinetiq 2008) sums this up as follows: 'Service innovators place a strong emphasis on creating the right environment for innovation and developing a positive attitude to creativity, risk and failure' (2008, p. 6, 49). Although approaches to this are diverse, leadership and supportive organizational cultures are critical.

It appears that, contrary to the current hegemony of competitive and hierarchical institutional relations within the university sector, fostering co-operative social relations between and among staff, students and management may be more successful in generating effective and enduring service innovations in research and teaching than present approaches. It is also likely to be more cost-effective in the long term. The essential qualities of teaching/learning, for example, include not just acquiring information relevant to life, but knowing and trusting each other enough

to think, talk and listen respectfully together. This is an embodied process of dialogue, one not readily attained in the virtual world in spite of its flexibility advantage nor does it lend itself to obsession with quantitative measurement of 'outcomes'. Is there any model for what a genuinely 'services-oriented' university education system, as against a purely 'market-driven' one might be like? Those emerging in the health sector have much to offer: after all, it shares with HE many similarities in financing, in complex and changing local demands, and in questions of professional autonomy, commitment and responsibility. The agenda of the emerging movement for 'patient- and family-centred' care has indeed adapted standardizing strategies for humanistic ends. Developed both by users of health services and committed health professionals, it is based on the understanding that there is no substitute for high quality *relationships* and improved *social practices* in workplaces, especially in large complex organizations (Berwick 2009; Crock 2010). In HE, Blackmore and Kandiko (2012) point in the same direction, arguing that a network approach to change could succeed where the neoliberalist vision has failed, for promoting a 'university based on creating, developing, supporting, and sustaining [local]networks is stronger, more ethical and more educationally sound' (2012, p. 209). Constructing such a vision for universities would require new strategic alliances to foster new forms of public dialogue with students' families and others in our diverse communities. It might just give us a genuinely innovative vision of the university's future in providing services to society as well as to markets-undoubtedly a legacy worth leaving to the next generation.

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