

## Chapter 2

### Part I Introduction

**Abstract** The stereotype of the unchanging university is challenged and the major forces influencing the ongoing evolution of universities are identified and summarised. The wider literature on change in universities is reviewed in order to place this work within a landscape of conflicting perspectives and proposed solutions. An extension of the ‘iron triangle’ linking cost, quality and access is described adding the influences of technology and stakeholders to represent the interacting forces contributing to the wicked problem of university change and stimulating sense-making.

About 85 institutions in the Western World established by 1520 still exist in recognizable forms, with similar functions and with unbroken histories, including the Catholic Church, the Parliaments of the Isle of Man, of Iceland, and of Great Britain, several Swiss cantons, and ... 70 universities (Kerr, 1987, p. 184).

The apparent isolation and seemingly unchanged nature of the university are a common theme oft repeated in many contexts by those seeking to influence the institution, the academics or the position universities hold in society. In presentations on organisational change in higher education, Clark Kerr’s quote (along with illuminated images of preachers reading to audiences in pews) is often used as a cynical commentary on the resistance to change by universities and the academic faculty specifically. A different perspective on Kerr’s observation is the recognition there are aspects of higher education that are inherently robust. The coherence of institutional identity and purpose over centuries can be seen as reflecting the value these organisations have for society. The quote then becomes a wry recognition and acknowledgement of their value.

Scott (1995) points out that the modern university has, in reality, dramatically changed. Perhaps the most obvious alteration is that women are now dominating student populations in many countries (Vincent-Lancrin, 2008) and are a growing presence at all levels of academia (if perhaps with more scope still to be realised at the senior level). In his analysis of the university sector in the UK, Scott (1995) identified at least twenty different types of organisation. Marginson and Considine

(2000) recognise five distinct university types in the Australian sector, and Bok (2013) a similar set of major types in the USA. A consideration of the differences between the US Ivy League institutions, technical universities such as MIT, large US state systems, and the diversity of European universities shows that characterisation of the university as a consistent and unchanged monomorphic ‘ivory tower’ cannot possibly be true (Adelman, 2009).

The re-framing of the role universities play in society; their status; their ability to change to meet the needs of an evolving society, the role technology plays in that change; these are the issues at the heart of this book. Diverse historical experiences and challenging changes in the local context affecting different universities means that normalising concepts such as the ‘liberal university’, the common project of ‘nation building’ (Marginson & Considine, 2000, p. 238) or ‘producer, protector, and inculcator of an idea of national culture’ (Readings, 1996, p. 3) are of limited value in guiding leaders planning for the future of any one university. Each university experiences a unique set of internal and external forces consequent to its history and the current dynamic context it is placed within.

The chapters in the first two parts of this book explore the context for change that faces the modern university and which leaders and strategists must consider when planning for the future. The apparent stability of the current model of higher education typified by the university is, in many respects, illusory. It is a consequence of the natural association of the term ‘university’ with artefacts of each organisation’s existence—such as the physical buildings, the reputation and name of the university, and the qualifications awarded. These historic artefacts cloud the recognition of the wider institutional elements of the university as a system of a modern society. The consequence of that wider social engagement is that the experience of both student and academic in a modern university is very different to that of their peers in the last century, despite the residual trappings of an earlier age.

A key presumption in this book is technology will stimulate new opportunities in higher education and inevitably, some of those opportunities will require organisational change in order to be fully realised. Technology is not, however, the only force acting to change higher education. This quiet evolution of the university experience is the result of a complex network of forces and influences that have been acting over decades to change the nature of the institution. Many of these forces were apparent to scholars and commentators thirty or 40 years ago as natural consequences of the shift from an élite pursuit to a more inclusive model. Marginson and Considine (2000) talk about a fundamental destabilisation of the university, as an institution or sector of society and also organisationally. Barnett (1992, p. 5) noted the changes already apparent in UK higher education more than 20 years ago:

1. A shift from a system enjoyed by the few to a system in which a large proportion of the population participates and in which an even larger proportion of the population now feels it has claims (so giving rise to talk of ‘accountability’).
2. A shift from a higher education which has been essentially part of the cultural apparatus of society to a higher education which is much more part of the

economic apparatus of society, so relegating its finishing-school aspects as it has become a force of production in its own right.

3. A shift from higher education being a personal and positional good to being more of a wider social good, having general societal value.
4. A shift from higher education being valued for its intrinsic properties to its being an instrumental good, especially for economic survival amidst expanding world markets.
5. A shift from a culture characterised by the formation of personal life-world projects to one dominated by the formation of public and strategic policies, so displacing what we might term the educational project of higher education.

These shifts in the systems and culture of the university are not entirely the result of a planned change imposed either externally or internally on the model of higher education. Nor are they inevitable and natural consequences of development and complexification of the organisation over time. They are, at least in part, the result of decisions made (or not made) by leaders and strategists within individual institutions. Clark (2004) talks about the idea of ‘volition’, the acts of collective organisational and leadership willpower, the intention to define an organisational identity and to enact that identity despite the pressure from external forces.

A volition is ‘an emergent act of will’, in the form of a decision to pursue a certain path of development. It is a judgment that produces commitment. It is a social act: a volition is made in the context of a social setting; what is decided is done in a network of existing impositions and facilitating structures. Especially within institutions - universities in our case - volitions and social conditions interact. And especially in such organised settings, volitions are collective decisions producing collective commitment (Clark, 2004, p. 93).

Shattock (2003) describes the ability to engage in volition behaviour as inherent to nature of successful universities:

Successful universities ... have a ‘self directed’ autonomy which enables them to establish goals intrinsic to their own ambitions, to establish resource allocation criteria to fit their own aspirations, to resist the automatic bidding culture, to accommodate accountability rules within academic structures that grow out of the management of academic disciplines, modes of teaching, and research environments and to merge state and non-state income streams to match the needs of the institution (p. 181).

Achieving this organisational autonomy, harnessing the collective will of the university in acts of volition, is key to the strategic leadership of a university for the future, particularly as the forces acting on universities change the expectations made of the organisation. These forces act on the organisation, applying stresses that can sustain collective action or weaken it. A possible set for higher education could include (Altbach, Reisberg, & Rumbley, 2009; Bok, 2013; Cunningham et al., 1997; Marginson, & Considine, 2000; Shattock, 2003; Sporn, 1999; Wissema, 2009):

- Demographic and political changes driving the scale and scope of higher education including increasing globalisation in all forms of commerce encompassing the movement of people and ideas and, specifically in this case, education;

- Internal and external stakeholder influences. Many, varied and often in conflict with each other, constantly changing as the place of higher education in society evolves;
- Financial challenges and constraints in terms of access to resources, the diversity of sources of revenue and the changing role of government and its positioning of public funding for organisations and also for individuals;
- The perception of the value of resulting qualifications and the role reputation and models of quality play in shaping the nature of the university;
- Technological innovation of pedagogy and of the organisation itself. The challenge of understanding the contribution technologies can make and realising those opportunities in a complex organisation.

It is important to appreciate that these forces are intrinsically neither ‘good’ nor ‘bad’ for the organisation. Nor do they embody a drive for coherent or purposeful change to the nature of higher education, arising as they do from actions taken by individuals and organisations acting in their own interests and contexts. Any attempt to directly engage with the specifics of any one force to change its nature, without reference to the stakeholders influencing it, is almost certainly doomed to fail. These forces can be seen as opportunities for sense-making through organisational self-analysis and reflection, through a critical engagement with the identity of the university, and potentially the enablement of positive change through relationships with the various stakeholders in the evolving university. They can then be harnessed and used by leaders to enhance the volition and strengthen the core identity of the university.

The impact of these forces and the consequent need for ongoing and substantial change in universities has been recognised by wide variety of authors, working both within the system and from the outside. These works describe the university as ‘embattled’, ‘ruined’, ‘corrupt’, ‘adrift’, ‘in crisis’ as needing ‘reinvention’, ‘transformation’, ‘disruption’ and above all, ‘innovation’ if it is to be saved from the forces for change. These analyses fall into several main themes: academic nostalgia for the well-funded period of growth predominantly occurring through the 1960s in the USA and somewhat later in other western nations; pure market arguments aimed at maximising the economic impact of universities and creating a commercially framed higher education system; and a range of nationally framed analyses attempting to influence government policies and investment in higher education systems. The range of perspectives represented in these books illustrates the scope of the wicked problem facing universities and the complex disagreements that reflect the different wicked problem characteristics.

Many academic accounts of the changing university are essentially attempts to document their personal experience of stress and disruption. Their works describe the nature and extent of the changes they have seen but ultimately present no strategy beyond a return to older models with a focus on an élite education (Anderson, 1996; Aronowitz, 2000; Bailey & Freedman, 2011; Brabazon, 2007; Collini, 2012; Hersch & Merrow, 2005; Holmwood, 2011; Readings, 1996) or the provision of additional funding free of government or commercial encumbrances

(Hil, 2012; Kirp, 2003). In many cases, there is a sense of acquiescence to forces beyond the influence of the university and a feeling of inevitable replacement and loss.

At the heart of many analyses is uncertainty about the identity of the university as an institution. Some are strongly influenced by Cardinal Newman's Idea of a university dating from more than 150 years ago (Newman, 1853/1976). Bloom (1987), for example, argues the identity of the university is itself defined by its focus on an élite model cloistered from society and focused on shaping human intellect. Readings (1996) takes a similar position, claiming the university is now 'ruined' and supplanted by a new type of institution aimed at economic and commercial outcomes.

Others, such as Bok (2013), contend that the university is a fundamentally strong institution, diverse in its nature and in the ways it has responded to a variety of stakeholders and interests. Geiger (2011) suggests that US higher education in particular shifts each generation, changing roughly every thirty years to meet the evolving needs of society, and there is some evidence of similar generational shifts in the UK and the Australian systems over the last 50 years.

The humanities are a particular focus of writing in this space concerned that preferential treatment through government-funding policies of science, technology, engineering and mathematics is occurring at the expense of arts, languages and other subjects with less direct links to rapidly growing sectors of the economy (Collini, 2012). Interestingly, many advocates of technological transformation draw their inspiration from examples of mathematics or computer science education without acknowledging the relative ease of automating teaching in those fields in comparison to business and humanities subjects which require a far more nuanced and contextualised pedagogical approach.

Donoghue (2008) argues that the declining status of the humanities is not new. He suggests higher education in the USA has been framed since the late nineteenth century by commercial preferences for education aligned to business requirements and values, rather than cultural and intellectual ones. He suggests that the humanities in universities are threatened by a combination of the oversupply of graduates driven by university and faculty self-interest, and the declining value commercial interests place in education in the humanities. His solution is to encourage sceptical scholarly engagement with the arguments used to justify the shift to a commercial and economic model and to reflect on the reality that the university must change, although not perhaps in a specific way. Bok (2003) contends that humanities scholars must accept some responsibility for the failure of the disciplines to articulate a compelling case for their ongoing importance and relevance to modern society, and the way this may be reflected in a changing university. An example of this counter-narrative is provided by Nixon (2011) who reasons the university's modern function should be defined by the development of human capability, reason and purpose, with the goal of sustaining the civic and cosmopolitan life of society.

The challenge of sustaining the civic values of society is complicated by the question of whose values are being sustained. Some academics regard the

university as historically captured by privilege and inequality, contending that it perpetuates this in contemporary society (Chatterjee & Maira, 2014). Fogel (2012) and Nussbaum (2010) claim that the profit motive underpinning much of the funding shifts apparent in many countries devalues human capabilities and is a short-term strategy that will ultimately damage the wider values and strengths of society. Giroux (2014) writes passionately about the threat of neoliberal ideology to higher education and to society in general. He makes a case for rebellion and widespread activism against political interests working to increase the level of inequality in society. Others argue that Marxist and humanist ideologies lead to a university disconnected from society and consequently corrupt in its influence on students (Kimball, 1990).

Criticisms of intellectual decline in universities are not limited to the humanities or civic values. Both Hacker and Dreifus (2010) and Taylor (2010) claim that self-interest reflected through research and tenure leads academics to abandon their students to unqualified tutors and the solution is to forsake both as a feature of the university. Others argue more persuasively that universities are not generating the level of impact on student learning that has been assumed (Arum & Roksa, 2011; Docherty, 2011; Keeling & Hersh, 2012; Pascarella & Terenzini, 2005), perhaps having lost their way in response to the forces of massification and the drive for efficient generation of qualifications. Arum and Roksa (2011) stimulated substantial debate with their critique on the extent a university education achieved significant learning gains by students. Their analysis argues for a greater focus on curriculum and accountability measures aimed at learning outcomes rather than sheer persistence. Subsequently, they have led a significant project aimed at linking assessment designs explicitly to outcomes (Arum, Roksa, & Cook, 2016).

Keeling and Hersh (2012) argue for a substantial shift in the focus of university education to concentrate systematically on the quality of learning achieved by students. Their solution, similar to that of Hacker and Dreifus (2010) and Taylor (2010), is a dramatic change in the role of academics. They advocate re-prioritising the place of teaching over research, including in tenure processes, and a requirement that students be taught directly by academics, not adjuncts or teaching assistants. Although their plan is radical to US eyes, many elements of it are familiar to Australasian academics; direct contact with academics for all undergraduates is a feature of the current University of Adelaide Small Group Discovery Teaching model (University of Adelaide, 2015).

Alvesson (2013) places higher education within a wider cultural shift, driven by 'grandiosity' and superficially plausible 'illusion tricks', which risks the integrity of the university by encouraging a destructive cycle of change aimed at building reputation and prestige without any contribution to the substance of the university. He calls recognition of this lack of integrity 'symbolic pollution' (Alvesson, & Berg, 1992). It erodes the social capital of the institution, leading to increased distrust (see Sect. 15.1) and, over time, damaging the capability of an organisation to engage in sense-making and sense-giving as the narratives are increasingly untrustworthy. This, in turn, leads to what he terms 'functional stupidity' (Alvesson, & Spicer, 2012), narrowing the strategic and operational choices

considered to those that are safe and consistent with a dominant and conservative view of the university. Other than suggesting that some attempt be made to maintain at least some institutional integrity, Alvesson does not provide any specific strategies for addressing the issues he identifies with the evolving university.

Anderson (1996) contends the university is declining as the result of a failure of governance with boards dominated by lawyers and accountants rather than leading intellectuals. His concerns revolve around the shifting role of the academic faculty from intellectual leadership and education to increasing quantities of research. This heightens academic isolation from students who are increasingly taught by a mix of adjuncts and other students. His observations mirror those of others, but his solutions seem implausible and disconnected from the reality of the system. His primary focus is the composition of boards, but other proposals include the abolition of tenure (already vanishing and increasingly irrelevant in US higher education) and a shift in focus from quantity of publications to quality (in practice, this merely shifts the focus of the quantity of publishing onto a smaller set of venues recognised as having high quality).

The relationship between governments and universities forms a major focus for some authors, reflecting the important role the government plays as a funder and regulator of higher education in many countries (Sect. 4.7). Funding is a significant feature of these analyses. Salmi (2009) argues that abundant resources and an engaged and highly supportive government enacting a favourable regulatory environment are essential for the development of world-class universities. Marginson and Considine (2000) document the way shifting governmental priorities and policies have shifted the Australian higher education system to a new form described as the enterprise university, reflecting the move to a mass model of education supported by wider regulatory and economic systems.

The changes in the UK arising from the Browne review (Browne, 2010), which is driving significantly reduced government funding for higher education, are the focus of a number of recent authors (Bailey & Freedman, 2011; Collini, 2012; Docherty, 2011; Holmwood, 2011; McGettigan, 2013; Nixon, 2011). They all contest this shift to a model seen as creating further inequality and forcing universities to adopt increasingly commercial models of operation. Despite considerable outrage and appeals to the wider 'public good', there a few details on how universities can engage with the changing environment in ways that protect their core values while operating in the new political and economic reality.

The policy and regulatory role of government is analysed by Selwyn (2014). He feels that government should act to protect the university from the negative consequences of change through its ability to enact policy and regulation which direct the operation of 'fairer' models. He suggests (while acknowledging that this is utopian in the extreme) that government could regulate to enforce a non-commercial and educationally productive use of technology within a fair education system.

Others argue the role of the public sector in the provision of education is distorting the efficient operation of a more productive higher education system. Those who claim that universities are inefficient, even wasteful, in their expenditure, promote the use of commercial language and models (Bowen, 2013; Martin, 2011;

Vedder, 2004). Bowen (2013) is widely cited for his work on the ‘cost disease’ facing higher education which maintains existing models of education are inherently unable to be scaled sustainably (see Sect. 5.4).

The solution for some is reforming universities into purely market-driven and commercially minded organisations (Vedder, 2004; Zemsky, 2009; Zemsky, Wegner, & Massy, 2005). Schierenbeck (2013), writing in the context of the return to a zero-fees policy for public higher education in Germany, argues strongly for a minimally regulated market model with substantial increases in tuition at public institutions and removal of any regulatory preferences for public providers over for-profit entities. He suggests accreditation and oversight can be undertaken by a group of competing for-profit companies acting like the financial rating agencies credited with creating the conditions for the 2008 financial crisis (Lewis, 2010). His recipe for a more productive system ultimately hinges on the creation of measures of ‘educational impact’. Education is compared to football with the analogy that goals scored can be used to rank football clubs effectively. The non-existence of any such simple unifying measure of value for higher education is treated as a problem for the market to resolve, despite clear evidence that such measures cannot be created (Chap. 16).

The operation of markets in higher education is contested by Marginson (2012b) who suggests such arguments fail to consider the political constraints and other sectoral characteristics that are intrinsic to education and that act against pure markets. Morrow (2006) takes this critique further, suggesting that it reflects ‘the simplistic thesis that everything to do with the state is bad (inefficient, paternalistic, undemocratic, oppressive, etc.) and everything to do with unregulated markets is good (efficient, empowering, democratic, liberating, etc.)’ (p. xxix).

For-profit models of higher education are promoted by a number of authors, although the US for-profit sector is struggling (Blumenstyk, 2015, January 6) and many of these analyses predate the US government’s multipronged crackdown on misconduct in the sector (Field, 2015; Thomason, 2015a). Some authors, such as commercial provider Kaplan’s chief executive, Andrew Rosen (Rosen, 2011), disingenuously argue that their business model is superior to that of the public institution, providing cheaper and more relevant education aligned to the needs of adults in particular. Kaplan is highly dependent on US public funds, as is the Apollo Education Group (see Sect. 9.2.1), receiving just under 90% of revenue from that source in 2010 (United States Senate, 2012) and, rather than being inherently superior, appears to have issues with student achievement (Biemiller, 2012).

Commercialisation is commonly identified by those arguing from within the sector as the factor destroying the integrity and value of the university. Many faculty disagree with any change drawn from outside the university or intended to increase the impact of the university on economic outcomes (Aronowitz, 2000; Bok, 2003; Kirp, 2003; Selwyn, 2014). The counter-argument is made by those seeing the university as an instrument of economic growth through engagement with industry and the commercialisation of technologies and research (Fayolle, & Redford, 2014; Wissema, 2009). This economic orientation of the university is

described as ‘academic capitalism’ (Slaughter, 1990; Slaughter, & Leslie, 1997; Slaughter, & Rhoades, 2004).

The importance of economic efficiency is reflected by the changing nature of the workforce employed by universities to teach (see Sect. 3.2.4). Donoghue (2008) points out that since 1975, US higher education is increasingly undertaken by a casualised workforce, which does not resemble the stereotype of a university academic. Consequently, the discussion about the future of university education is somewhat moot, as a new model already exists hidden behind the residue of the élite university, perpetuated in the popular consciousness by a few highly selective universities with international reputations and brands.

Transformation is a frequent theme running through these analyses. Zemsky (2009) argues that change is dependent on sector-wide transformation requiring an external disruption or intervention. Standard-bearer of the disruptive transformation of education enabled by technology is Christensen (Christensen, Horn, & Johnson, 2008; Christensen, & Eyring, 2011) who is widely cited by others writing in the field (see Sect. 17.3). His arguments assume education is a service analogous to that provided by media companies and consequently able to be transformed by the adoption of technological approaches replacing the classroom and academics with cheap, large-scale online experiences.

Ernst and Young (2012) predict radical transformation of Australian higher education in response to technologically enabled models of distributed organisations and the entry of a disruptive array of new specialist commercial education and service providers. Carey (2015) similarly assumes that technology will dramatically transform higher education as MOOCs (see Sect. 11.2) and similar technological modes of education sweep away universities and replace them with abundant free content and experiences delivered online through a University of Everywhere.

Bowen’s (2013) responses to the unsustainable economic constraints affecting higher education reflect the way technology is positioned generically as a single solution, without necessarily engaging with the other forces influencing education, or addressing any plausible response to the obvious issues. His remedies include using MOOCs (see Sect. 11.2) to stimulate commercial solutions capable of supporting outsourcing the verification of student outcomes and for delivering good quality education at scale. He advocates structured ‘toolkits’ to reuse standardised pedagogical designs and content through an educational equivalent of Google, despite acknowledging previous attempts have failed (Wiley, 2001). He encourages reducing costs without any ideas as to how to achieve this, given the reality of the cost disease and the recognition that expenditure increases are often driven by external factors including regulatory requirements and the expense of modern technology.

Flawed transformation thinking is not limited to those promoting technological solutionism. Those identifying technology as a specific challenge to the identity of the university and who argue against any substantive change to the traditional lecture model of education (Brabazon, 2007; Noble, 2002; Selwyn, 2014) are themselves assuming a transformative power that cannot be shaped positively to the benefit of the university and society.

Bowen's (2013) proposed solutions imply that learning and teaching is not a core capability of the university but something to be outsourced and defined primarily by operational exigencies. Apart from his choice of technological means, much of this mirrors the work of Cooke (1910) who made a similar series of arguments aimed at improving the efficiency of universities more than a century ago.

Questions about what constitutes the core functions of the university are increasingly asked by those concerned with the impact diverse demands make on the university as an institution. Kerr (1963) articulates this diversity in his concept of the 'multiversity', a 'whole series of communities and activities held together by a common name, a common governing board, and related purposes' (p. 1). He recognises the boundaries of the university have become increasingly abstract, reflecting relationships with a wide variety of stakeholders (see Chap. 4) and the range of interests served by different parts of the organisation.

Students are now seeking education and experiences from an increasing diversity of sources, many of which bear little resemblance to the traditional university (Selingo, 2013). Scholarly communities have been recognised as transcending the boundaries of the university for some time, described variously as 'invisible colleges' and communities of practice (Crane, 1972; Hagel, Brown, Mathew, Wool, & Tsu, 2014; Wenger, 1998). There are growing signs of academics moving outside of the university to operate independently as part of the dynamic economy enabled by the Internet (Lanier, 2013; Young, 2015b), suggesting the concept of a university may yet become even more abstract.

The argument for a disaggregation of the university is made strongly by Craig (2015), a venture capitalist advocate and managing director of equity company University Ventures. Craig argues for the creation of a two-tiered system, with the elite enjoying a full service and everyone else paying for a minimal system constructed from the offerings of competing service companies. Elements of his suggested system are already apparent in the changes occurring to the Californian systems as Kerr's plan fails under the pressure of systematic underfunding (Bates, 2012). University Ventures is heavily funded by the German Bertelsmann publishing group (Wiesmann, 2012), which is attempting to establish a strong foothold in higher education similar to that of the Pearson group. The growth of outsourcing as a model for a gradual shift from public education to a hybrid partnership with for-profit interests is a major opportunity for these service companies, one that raises significant questions (Sect. 4.6).

The final major focus of analysis on the changing state of the university is the conception of leadership and the role leaders play in determining the impact change has on the institution. Increasingly, there is awareness that hierarchical models of leadership are failing to cope with the complexity of the challenges facing the university (Bennett & Hemsall, 2010) and that distributed models are needed to build a more agile organisation (Bennis, 1999; Jones, Lefoe, Harvey & Ryland, 2012; Marshall & Flutey, 2017).

An illustration of the role flexible and creative leadership can play is provided by Crow and Dabars (2015). They present a detailed analysis of how Arizona State University has responded to the wider changes facing the university. Their model,

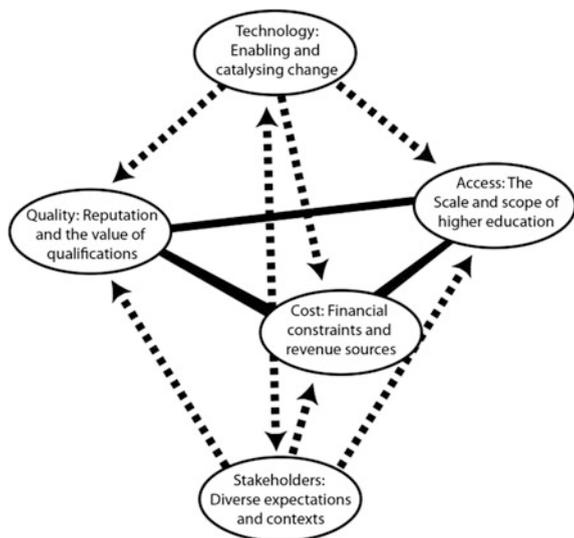
the New American University, is a commitment to directly respond to the implications of the forces acting on the system in order to meet the needs of their state. This approach suggests that rational responses to the wicked problem can be articulated and successfully engaged with over extended periods of time.

Bok (2013) notes that evidence of transformative leadership in higher education is sparse, naming a small handful of institutions who have achieved significant changes to their operations, all primarily within the traditional scope of the university. Universities lauded as transformative models, such as the University of Phoenix or the Open University of the UK, operate within a traditional framework of qualifications and pedagogical structures and both show clear signs of struggling to maintain their models in a rapidly changing world. Bok attributes this lack, not to a failure of leadership within the university, but to the complexity of the challenges facing modern universities. This complexity is driven by the intersection of the forces outlined in this section and the technology outlined in the next. The reality of the wicked problem they create is that radical transformation becomes unrealistic as a criterion for successful leadership.

The analysis of the forces in the chapters of this and the next section does not propose a specific solution (which, as noted in the introduction, is impossible for a wicked problem) but stimulates a process of sense-making and reflection as a starting point for action by university leaders. The interrelationship between these forces is important in making sense of their impact in particular contexts. Daniel, Kanwar and Uvalic-Trumbic (2009) have described this mutual dependency of factors influencing an organisation, specifically the challenge of balancing access, cost and quality, as an ‘iron triangle’.

Figure 2.1 illustrates the relationship between these forces, drawing on the iron triangle but also noting the influence of stakeholders and technology. This figure

**Fig. 2.1** Forces influencing modern educational institutions (modified from Daniel, Kanwar, & Uvalic-Trumbic, 2009)



provides a representation of the interactions that underlie the wicked problem of university change, identifying the primary drivers creating cues for sense-making. Each of the intersections between these forces represents a point of possible engagement with elements of the problem, but also shows where changes will propagate throughout the problem reshaping it further.

Educational quality is treated in Daniel et al.'s model as a single dimension, but it reflects a combination of complex factors, including the value and utility of qualifications, and is very dependent upon the perspectives and interests of specific stakeholders (Chap. 4). This influence is identified by Zemsky (2009) as regulation but also reflects broader social and economic forces acting on the university. Technology sits within the confluence of these forces and acts primarily as a catalyst for change and an enabler of new forms and models of education that reframe the forces.

Bergquist (1995) suggests that different priorities given to access, cost and quality define the perspective taken by organisational leaders. The *elitist* perspective focuses on quality with little concern for access or cost; the *populist* perspective contrasts this by focusing primarily on access, again with little concern for cost or quality. The *beleaguered* perspective is defined by cost with issues of quality and access regarded as lacking urgency. The *expedient* perspective on quality defines quality and access as endpoints on a scale requiring some form of compromise or trade-off. This is contrasted by the, arguably more optimistic, *unified* perspective that sees opportunities to benefit from synergies gained in the improvement of access, cost and quality. All of these are influenced by the choice of stakeholder interests and the impact of technological change on the context of the institution.

One way to escape the constraints of the iron triangle as originally conceived is to change some of the fundamental assumptions about quality, including its relationship to specific qualification models. The open agenda with its political, legal and technology dimensions provides an important illustration of the way the various forces can interact (see Chap. 11). Changing models of information use and ownership, reflecting the low cost of duplicating digital goods and a reaction against commercial intellectual property and ownership driven by scarcity and control, have combined with social and political drivers aimed at increased access and freedom in education. Initially, these ideas resulted in the UK Open University with its goals of removing barriers to access but within a framework otherwise compliant to the existing university system. More recently, a new wave of exploration and sense-making has seen the rise of the MOOC as a means of re-engaging with these ideas. Another possible strategy (see Part II) is to explore ways that change the relationship between the three components by using technology to enable and sustain different pedagogical approaches (Seely Brown & Adler, 2008; Cormier, 2012; Daniel, 2012). As will be seen the wicked nature of this space is reflected in the complex interplay of these forces and the unanticipated outcomes that arise from apparently simple interventions.

The first step to harnessing the forces acting on higher education is taken by understanding something of their nature. In the language of sense-making, these

forces potentially generate cues that trigger an attempt to find new meanings. They can be used in sense-giving strategies to stimulate awareness of the need to change the attitudes and orientation of the organisation. The chapters in this section and the next consider each of these forces in detail, exploring the ways they influence higher education organisations, then conclude by considering how the combined set is influencing the institution of higher education in society.



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