



Preparing for the future: Meeting the needs of tertiary education through the edgeless university

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The university is becoming defined by its function – provider and facilitator of learning and research – not its form. The function the university performs is no longer contained within the campus, or within the physically defined space of a particular institution, nor, sometimes, even in higher education institutions at all. The term “edgeless” has been used to describe this phenomenon. Rapid changes in the nature of the workplace, work, the structure of organisations, and the pervasive presence of networked technologies are requiring a shift in focus in the world of education and training. The internet, social networks, and collaborative online tools allow people to work together more easily and the provision of open access to content can be both the cause of change for universities, and a tool with which they can respond. The key to organisational change and sustainability is to embrace these “disruptions”, exploit the energies created, accepting that this may require significant change in the cultural orientation and behaviour of stakeholders. This paper promotes a need for shared vision and an institution-wide response, consultation and collaboration, a commitment to a “futures” perspective, a culture of “openness” and a willingness to embrace elements of risk as being significant to an institution in shaping its future direction. As an example, the paper refers to the establishment of a Digital Futures Institute at an Australian regional university.

Keywords: disruptive, futures, edgeless, openness, risk management

Introduction

In today’s knowledge economy, the role of higher education is being redefined. Hilton (2006, p. 1) suggests that this may be viewed as “a perfect storm, born from the convergence of numerous disruptive forces... [and] as the dawn of a new day, a sunrise rife with opportunities arising from these same disruptive forces”. How an institution chooses to respond to the disruptions can shape its future direction. Using technology in innovative ways can be at the heart of institutional change but this does not mean subscribing to an “edifice complex” (Sudjic, 2006) – creating more buildings on a university campus to house a variety of technologies. The internet, social networks, and collaborative online tools allow people to work together more easily and the provision of open access to content can be both the cause of change for universities, and a tool with which they can respond. Lang (2003) has used the term “edgeless” to describe cities subject to a certain type of “sprawl”. Universities too are experiencing sprawl. The university is becoming defined by its function – provider and facilitator of learning, teaching and research – not its form. These functions are no longer contained within the campus, nor within the physically defined space of a particular institution, nor, sometimes, even in higher education institutions at all. At the heart of this is the recognition

that “people [are] finding new ways to access and use ideas and knowledge by new networks of learning and innovation” (Bradwell, 2009, p. 8) made possible by a range of information and communication technologies.

Disruptive forces, challenges and constraints

Bradwell’s (2009) report identifies several challenges in managing an edgeless university including the need to reconcile informal learning with the formal system. To achieve this requires strong leadership at institutional and government levels. Systems for accrediting informal learning may create pressures within institutions at all levels particularly regarding the cost, and public perception. A number of professional bodies who accredit degree programs may also be resistant to such change and this is certainly an area where the Government needs to lead. Organisational philosophy, policies, existing infrastructure, procedures and economic imperatives are conditions which are a reality in most educational environments. In many instances, these organisational characteristics challenge and constrain the adoption of innovative approaches to learning, teaching and research. There is a tendency toward short-term thinking in the public sphere, e.g., election cycles often determine the timeframe (OECD, 2009). Bradwell’s report also highlights that becoming edgeless isn’t about becoming faceless - students still highly value human contact and connection and staff need the opportunity and incentive to develop new ways of working. Bradwell (2009, p. 63) concludes that:

In building the e-infrastructure for higher education we should not just build around the needs of institutions as they exist already. To pursue the possibilities of the ‘Edgeless University’, technology will have to be taken more seriously as a strategic asset. Technology is a driver for change.

So, how has the educational landscape evolved and changed? Where have new and emerging technologies taken us as educators? How has access to these technologies impacted the higher education scene, how is government policy accommodating and supporting this change, and how will institutions look in the future? In Australia over the last three decades, there has been a substantial increase in numbers of students accessing university education, a considerable change in the student profile of those entering universities and in the expectations of students. Supported by government initiatives to increase access, participation, retention and success in university programs for a number of targeted disadvantaged groups, universities have opened their doors to a more diverse student group, thus legitimising flexible pathways for university entry. This focus has positioned access and equity as central and faculties have experienced greater pressure to do more with less. Learning and teaching contexts, such as discipline areas, sizes of classes, facilities and resources, lack of prestige or rewards for innovative teaching all contribute to the circumstances that influence an institution’s ability or willingness to embrace innovation. However, as noted in a recent EDUCAUSE white paper (EDUCAUSE, 2010), creation of a future that meets diverse educational expectations requires “collaboration across organizational and national boundaries, bringing together the collective intelligence of people from backgrounds including education, corporations, and government” (p.3).

Dare to be different

For many years, the University of Southern Queensland (USQ), a regional university, has been “edgeless” geographically in that it has provided education outside of its physical spaces. USQ has offered distance education for more than 30 years and has over seventy-five percent of its learners studying at a distance. New and emerging technologies have enabled it to move into spaces not yet inhabited by its educational footprint and to tap student markets far beyond those traditionally reached. USQ has also been edgeless in research as innovation has depended increasingly on collaborations between institutions and among academics in national and international contexts. This is the value of, and the opportunity for the concept of the edgeless university where USQ is exploring new ways of accrediting learning, of providing recognition for research and learning and of exploring affiliations with partner institutions.

Shared vision

The need for a shared vision, consultation and collaboration at all stages of the change process within an educational institution is critical. Bennis and Nannus (1985, p. 42) make the point that “the acceptance of a new idea is never determined solely by the quality of that idea”. They believe that successful organisations depend on the existence of shared meanings and interpretations of reality, which facilitate coordinated action. Over the years, most universities have recognised the promise of learning technologies, but what is often missing is an overarching sense of purpose along with any practical sense of what the shape and consequences of successful innovations might look like. This direction has significant leadership implications including the establishment and maintenance of effective, multi-directional communication channels to promote shared understanding amongst all levels of an institution and the management of expectations against the reality of experience in a constantly changing environment.

Australian Digital Futures Institute (ADFI)

USQ’s initiative to meet many of the challenges facing the contemporary university has been to establish the Australian Digital Futures Institute (ADFI). The strategic focus of ADFI as an institutional entity is to identify, test, and promote the application of new and emerging technologies with a view to transforming learning and teaching practice and research activity across the university, within and across disciplines and extending to national and international collaborators. Social constructivism underpins the learning and teaching direction promoted by the Institute and many of the projects are framed by a design-based research approach as it is an important methodology for understanding how, when, and why educational innovations work in practice. The intention is to position ADFI as the thought leader not just for the University but to be recognised nationally and internationally for its innovation and excellence. To support this aspiration, the institution has appointed an internationally recognised scholar and practitioner to lead ADFI and USQ into the future.

Promoting and planning for the future

ADFI subscribes to the concept of “futures thinking” where perspectives to look beyond immediate possibilities and constraints are promoted. The future is inherently unpredictable but considering trends can inform ideas about what might happen, opening minds to consider new possibilities. As noted by the OECD (2009, p. 14), “to mobilise a system for sustainability, its leaders must go beyond fine-tuning the existing system”. The spotlight on greater openness, flexibility and responsiveness is at the very core of USQ’s mandate and reputation. Whilst the institution continues to monitor what others are doing – indeed this is an integral part of ADFI’s brief to ensure it does not replicate existing activity or make the same mistakes - USQ cannot aspire to be a world leader in open and flexible higher education if it is not prepared to have a futures perspective about its operations. To further promote this concept, a Learning Futures Academy with an associated open access journal has been established within ADFI to support and represent USQ research activity around digital learning futures. The establishment of a professional learning community supported by organisational commitment, tangible support both human and financial, and an interactive and collaborative online workspace using a suite of Web 2.0 tools aims to encourage and support innovation and change.

The concept of “openness”

The Open Educational Resources (OER) movement, embraced by a number of international organisations including UNESCO, The World Bank, OECD, The Commonwealth of Learning and The European Union, has proved significant in the global higher education arena (Taylor, 2007). The central tenet of the OER movement is that the world’s knowledge is a public good and that a culture of sharing resources and practices will help facilitate change and innovation in education. This educational perspective has been gaining momentum across the world for nearly a decade and is impacting the way many institutions and individuals view education (New Media Consortium, 2010). USQ’s commitment to a culture of “openness” is illustrated by its adoption of Moodle as its Learning Management System, its focus on the development of open source software e.g., the adoption of ICE, developed by ADFI’s software development team, as a core, supported content authoring system (see <http://ice.usq.edu.au>/its membership of the international Open CourseWare (OCW) Consortium (<http://www.ocwconsortium.org/>) and through its establishment of an Open Access College to reach a broader student base through technology-enhanced learning opportunities and a more open entry policy.

The element of risk

Mitchell, Winslett and Howell (2009) maintain that there should be a healthy tension between safety in information technology (security, etc.) and risk experimentation when providing and supporting technology-enhanced learning, teaching and research. Increasingly, learners are bringing their own technological devices to the learning environment so there is becoming less of a need to provide actual hardware and more of a requirement to ensure the technological infrastructure supports these ubiquitous devices. Because the devices often belong to the student and operate through networks outside the institutional environment, modifying and locking down the machines may not always be possible or desirable, resulting in challenges for those in the business of technology management and control. Rather than simply responding to change, leaders and organisations are encouraged to anticipate and behave proactively. This may seem at odds with the control that organisational systems and IT departments usually exercise but no longer can institutions simply ban or prevent access to resources as individuals will go around such barriers and find other ways of carrying out their daily activity. Mitchell et al. (2009, p. 92) make the point that “risk management and innovation are not necessarily good companions” and that new policy is most likely required to enable the exploration of innovative ideas that are not necessarily consistent with previous practice.

This acceptance and adoption of a more flexible approach to risk is an imperative for academic and administrative fundamentals of an educational institution and reflects Bradwell’s (2009, p. 58) view that “being able to develop new ways of teaching depends on the capacity to experiment”. How to motivate academics with limited time to experiment and engage with innovations in the face of competing priorities presents a significant challenge. Another of ADFI’s responses has been through its Technology Enhanced Learning Laboratory which provides a safe, experimental, ICT-enabled environment where teachers can explore the pedagogical applications of technologies and be challenged to rethink the possibilities of using spaces and technologies for learning and teaching.

Conclusion

The trends in and impacts of the use of technologies in the higher education sector mean that change is an ongoing, organic factor where there is no point in time at which everyone can declare a victory and go back to normal life. This is not necessarily something to be feared as it promises exciting challenges. The need to revise organisational structures, policies and perceptions to facilitate the diffusion of educational innovations is apparent and finding the means to promote innovative educational methods that challenge established culture and practice with limited evidence of initial positive impact present challenges to an institution. This, aligned with a conscious and explicit effort by the organisation to value the time and effort required by everyone to explore and adopt innovations and to reward and sustain the outcomes of these efforts will also contribute to successful transitions. The key to institutional change is to embrace the disruptive forces, exploit the energies created, accepting that this may require significant adaptation in the cultural orientation of stakeholders.

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