

Flexibility and technology-enhanced learning and teaching: The rhetoric and reality

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According to the rhetoric, flexibility is one of the key benefits of online learning and teaching in higher education. In this paper we identify a set of dimensions of flexibility and demonstrate that the reality of much current technology-enhanced learning and teaching is, in fact, no more flexible than the early distance education model and in some respects is less flexible. We suggest that we are on the cusp of a radical transformation of online education. However, there are constraints in terms of students' lack of strategies to manage their learning environments and a lack of research into pedagogically sound models for the delivery of truly flexible, personalised learning and teaching.

Keywords: Distance education, flexibility, online learning, technology-enhanced learning

Introduction

In this paper we have adopted the theme of the conference – rhetoric and reality – to explore one aspect of technology-enhanced learning, namely, the promise of flexibility. While flexibility is just one criterion that could be used to evaluate learning and teaching, we believe it is an important one given that both students and academic staff are time-poor. While the term 'flexible education' is commonly used, Mason et al. (2009), for example, point out there is no agreed definition of what this means because "the call for 'flexibility' has emerged as a response to a range of needs from a range of stakeholders, at different times and in many contexts" (p. 9). For our purposes we have identified a set of dimensions of flexibility (medium, time, place, content options, learning styles, assessment, interaction and collaboration, and learning support) which provide a framework for considering flexibility in learning and teaching since the introduction of distance education.

In the next section we provide a very brief overview of the history of distance education, using the University of New England as an example, before comparing the flexibility of this model of learning and teaching with the flexibility of current practices in technology-enhanced learning and teaching and a truly flexible model of future online education. We demonstrate that most current online learning and teaching delivers a very constrained version of flexibility to students. Indeed, it can be shown to be no more flexible than the very early versions of distance education. We claim that in order to capitalise on the opportunities offered by Web2.0 technologies, a paradigm shift is required in institutional practice and curriculum design to move from where we are now in terms of flexibility to where online education could be.

A very brief history of distance education

It is helpful to briefly consider the history of distance education which has long been regarded as a flexible study option for students who, for reasons related to gender, geographical location, work or other commitments, found on-campus study impossible. Distance education developed from the mid-19th century in the US and Europe (Casey, 2008; Hansen, 2001; Rumble, 2001). By 1910 in Australia, correspondence courses allowing teachers to complete their qualifications were available and this demand for teacher education was the driver for the establishment of external studies in institutions of higher education (Stacey, 2005). Our institution, the University of New England, has over 60 years' experience in distance education and claims on its website to have been recognised as a pioneer of teaching to external students by correspondence: "making UNE Australia's most experienced provider of distance and now online education" (UNE, n.p.).

A comparison of flexibility

The table below provides an overview of the flexibility of three models of distance and online education which are discussed in more detail in the following sections. As with any model, we have presented generalisations and we acknowledge that there are excellent examples of current practice that are much more flexible than we have suggested in the 'circa 2014' column.

Table 1: A comparison of flexibility

Dimension	Distance Education – Flexible?	Technology-enhanced Education – Flexible?	The Future – Flexible!
	Pre-Online (up until the 1990s)	UNE circa 2014	UNE circa 2024?
Medium	No, delivered by post (either hard copy or CD)	No, typically delivered via LMS	Yes, student curated/created materials and within a range of online environments
Time			
Flexible enrolment periods	No	No	Yes
Flexible study times	Yes, within prescribed teaching period	Yes, within prescribed teaching period	Yes
Place	Yes	Yes, but unreliable internet connectivity is an issue for some students	Yes, assuming reliable and affordable internet connectivity for students
Alternative content options	No	Yes, but often an overwhelming range of resources	Yes, adaptive and personalised learning
Different learning styles accommodated	No	Typically no	Yes
Assessment:			
Choice of tasks	No	Typically no	Yes
Choice of submission dates	No	Constrained	Yes
Invigilated exams	Yes	Some movement away from this form of assessment	Superseded
Interaction and Collaboration	No, unless residential schools were offered	Yes, in the online environment but may lead to additional time constraints	Yes, student driven and central to learning process but may lead to time constraints
Learning support	No, limited to student-initiated phone or mail contact, and at residential schools (if offered)	Variable depending on particular lecturers and institutional approaches	Yes, 24/7

Distance education pre-online

Originally, distance education relied on the postal service to deliver printed study notes and/or readings, along with details of assessment tasks and information regarding any additional study requirements (e.g. attendance at residential schools and invigilated exams). Provided students had access to a postal service to receive the study materials and could return their assessment tasks by mail to the University, they could successfully study subjects and complete degrees. Indeed, this use of the postal system to facilitate distance education was recognised as a major disruption in education at the time it was adopted (Nazeeri, 2014). While study notes and readings may have been cumbersome, this approach to learning and teaching was flexible in terms of students being able to access their materials at any convenient time (within the set teaching period) and in a place of their choosing. While there may have been additional requirements in some subjects such as attending a residential school or an invigilated exam, it was the flexibility of this form of study that made it attractive to students and, for some students, it was the only form of higher education they could access. More recently, a CD may have been posted instead of printed materials which required students to have access to a computer with a disk drive. However, this change of medium did not appear to have a huge impact on flexibility. As can be seen in the

table, this form of distance education offered flexibility in terms of where and when students could study (within teaching period time constraints) and students were required to be independent learners with very little support.

Online learning and teaching circa 2014

Online education delivered through a learning management system (LMS) has moved away from a reliance on postal services. However, this mode of education typically retains many of the restrictions on flexibility that were evident in the early versions of distance education despite claims about the flexibility of online study: prescribed start and finish dates for the subject, inflexible due dates for assessment tasks, required attendance at residential schools and/or invigilated examinations in some subjects, a single set of resources that are expected to be used in the same way by all students and a single set of assessment tasks. Moreover, with the adoption of additional online technologies, there are often extra compulsory activities with prescribed timelines making this model less flexible than the earlier distance education model. The quality of students' internet connection can further impact on the flexibility of this model.

While we acknowledge there are pockets of excellence in the design and delivery of online learning and teaching utilising constructivist pedagogies, often the approach taken has been to augment the reformatted printed materials from previous distance education offerings with discussion boards, wikis, podcasts and/or vodcasts of the lecturer delivering content, and provision of links to relevant web-based resources such as YouTube videos. For time-poor students, this can become information overload and can lead to a *paradox of choice* where the opportunity to have options is appreciated, but the more choice that is available, the more difficult it is to make good decisions about how to spend their study time. This increase in the range of learning resources has therefore created another problem. Kirschner and Merriënboer (2013) suggest that it is "important to give learners limited rather than unlimited control, because having to choose from too many options is perceived as frustrating" (p. 178). These researchers found that higher education students do not usually make good and appropriate use of learner control situations.

The reason for this is that learners do not have or do not know how to utilize appropriate strategies when they are left to themselves to manage their learning environments (i.e., they do not have the capacity to appraise both the demands of the task and their own learning needs in relation to that task in order to select appropriate instruction). In other words, learners often misregulate their learning, exerting control in a misguided or counterproductive fashion and not achieving the desired result (Kirschner & Merriënboer, 2013, p. 177).

Research on student expectations with relation to learning and teaching by Margaryan and Littlejohn (2008) investigated students' use of technologies for learning and found that "[t]he outcomes suggest that although the calls for radical transformation in educational approaches may be legitimate it would be misleading to ground the arguments for such change solely in students' shifting expectations and patterns of learning and technology use" (p. 1). These authors claim that at present we are still in a transitional stage where online access may be 'anywhere/anytime' in principle, however, this is not always a reality for all students.

Our own more recent observations confirm this perspective (and also illustrate Kirschner and Merriënboer's *paradox of choice*). From comments we see in student evaluations and postings to discussion spaces within the LMS requesting pdfs or print materials, angst over the volume of readings, the time required to go through the online resources provided (including asynchronous activities) and confusion over which resources should be accessed, it is clear that not all students are comfortable with fully online environments and that they need clear guidance on how to approach their study. As part of a research project last year we surveyed students enrolled in an online MBA subject and they reported that they worked an average of 41.26 hours in paid employment per week as well as studying 1.67 subjects online. Students at UNE are advised on enrolment that they should allocate approximately 11–12 hours per week per subject to study therefore students were, on average, committed to almost 60 hours per week of work and study. It is no wonder that students are frustrated by unreliable and slow internet connections and their comments also demonstrate that they need guidance in prioritising their learning activities for maximum benefit.

Moving forward

The drivers of emerging trends in higher education result from broader societal change. Some of the key drivers of this change are: digital technologies, the uptake of mobile devices, expanding connectivity, open access to content and software, the possibility to personalise devices and content, a move from content consumption to content creation and anytime/anywhere access (see, for example, Wiley, 2008). One of the benefits of these

changes is that there is a vast amount of content available at no cost thus making access to higher education more accessible and equitable. As a result, a trend in higher education delivery is toward openness and the disaggregation of learning, most commonly delivered online. The most notable example is the rapid growth of massive open online courses (MOOCs). The flexibility of currently available MOOCs, however, is more akin to the 2014 version of online education rather than a radical reconceptualisation of the delivery of online learning and teaching. MOOCs are flexible in terms of the way they are accessed – they are ‘open’ because students are not required to be enrolled in a higher education institution in order to study a subject and the basic content is free. However, there is still typically a single set of learning resources, prescribed enrolment dates and time limits on activities, and limited learning support and opportunities for interaction and collaboration. Thus the challenge of MOOCs is to the existing higher education model which is based on courses, usually overseen by a single institution and made up of a specified program of units which combine to deliver identified learning outcomes rather than to current online learning and teaching practice.

The 2013 Horizon Report provides a reality check on what is possible at the moment and where we are headed:

The demand for personalized learning is not adequately supported by current technology or practices. The increasing demand for education that is customized to each student’s unique needs is driving the development of new technologies that provide more learner choice and control and allow for differentiated instruction. It has become clear that one size-fits-all teaching methods are neither effective nor acceptable for today’s diverse students. Technology can and should support individual choices about access to materials and expertise, amount and type of educational content, and methods of teaching. The biggest barrier to personalized learning, however, is that scientific, data-driven approaches to effectively facilitate personalization have only recently begun to emerge; learning analytics, for example, is still in the very nascent stage of implementation and adoption within higher education. (p. 10)

The rhetoric of openness, flexibility, adaptiveness and personalisation suggests the future of higher education delivered online will differ greatly from current models both in structure and content. Students will no longer be required to be enrolled in courses with a single provider. They will have access to adult and continuing education, professional development etc. offered by a multitude of providers located anywhere in the world. Moreover, the diverse content options these providers will offer will provide further flexibility for students to tailor their learning to their own individual requirements. Such fundamental change suggests that a paradigm shift will be required rather than modification of existing models. This new approach will also require students to be empowered to take control of their learning.

Conclusion

There is an urgent need for higher education providers (and regulators) to understand the implications of the emerging trends in technology-enhanced learning and teaching and the academic challenges and opportunities they present. Alternative models to the traditional course structure need to be identified that incorporate the benefits of increased flexibility, diversity and personalisation while, at the same time, maintain high academic standards within sustainable business models. As individual educators, the challenge for us is to resist the ‘me too’ mentality and make pedagogically sound choices around our use of technology during this period of transition keeping in mind the difference between rhetoric and reality and the diversity of our students.

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