Online education is growing rapidly due to faster Internet connections, a higher uptake of broadband Internet and greater IT literacy. However, effective online education can only be achieved through a considered approach that connects learners through collaboration, interaction, participation, personalisation and productivity. Swinburne Online is a recent player in the field of online education and is borne through a partnership between Swinburne University of Technology and SEEK Limited. Swinburne Online provides a model of online education that adheres to state of the art research. It uses Gilly Salmon’s five stage model of online learning combined with a supportive environment for learners. The venture to date has seen a rapid development of online courses but has not been without challenges.

Introduction

One of the most important factors affecting teaching practices within the higher education sector is the introduction of new information and communication technologies (ICT). Online technology is the largest growth area in higher education, becoming popular because of the potential to provide more flexible access to content and instruction from any place at any time. Educational institutions are attracted by the capacity to increase their course availabilities to a wider range of students who cannot, or who choose not to, attend traditional face-to-face classes, but it has implications for teaching. Increasing student diversity requires more flexible teaching and learning methodologies (Snyder 2009). Over the past ten years, many educational institutions have offered their courses online. Numbers have grown steadily. Globally, online education is growing exponentially; in many less developed countries growth rates are phenomenal. The top four adopters of self-paced e-learning, all showing projected five-year growth rates of 35% or more, are Vietnam, Malaysia, Romania and Azerbaijan (Ambient 2011).

Australia online

The uptake of broadband Internet and the IT literacy of individuals are key drivers of online education (IbisWorld 2012). Sloan Consortium reports that over 6.1 million students were enrolled in at least one online course in 2010 (Allen and Seaman 2011). IbisWorld reports over 1000 providers in Australia alone, although few are pure online providers. Most use online education to supplement existing offerings (IbisWorld 2012). Some benefits of online education are reported to be higher profit margins compared to traditional delivery modes – approximately 8.8% of revenue compared to an average of 3.8% for all education. Open University Australia and SEEK Limited are two organisations which compile most online offerings in Australia, thus enabling potential students to find online course offerings relatively easily. The majority of online courses are non-formal education (55.9%). Another
11.3% are aimed at undergraduate courses, and 13.8% at Graduate Diploma and above. By far the most popular subjects taken online are IT (44.3% of students enrolled in online courses) followed by Finance at 8.7% and management at 8.1%. About 23% of students are aged between 19 and 24 years, 22.8% between 25 and 29 years and 19% are 30 to 34 years. Only 3% of online learners are over 55 years of age and only 3.7% below 18 years of age. New South Wales has by far the largest percentage of students enrolled (39.8%), followed by Queensland (26%) and Victoria (14.8%) (IbisWorld 2012).

The NMC Horizon Report Technology Outlook for Australian Tertiary Education (Johnson et al. 2012) finds that Australian experts think online education will play a major part in Australian education in the future. This differs somewhat from other countries. They predict the move to Massively Open Online Courses (MOOCs) in the next four to five years and more open content in the next two to three years. The top three trends for education in Australia according to this report are:

1) People expect to be able to work, learn, and study whenever and wherever they want,

2) Increasingly, students want to use their own technology for learning and

3) Education paradigms are shifting to include online learning, hybrid learning and collaborative models (Johnson et al. 2012: 17).

The top reasons for the shift to online education will be the ability to work, learn and study whenever and wherever people want; the ability for students to use their own technology; and the shift in higher education towards more online, hybrid and collaborative models of learning.

**Online courses versus traditional face to face**

Online courses offer several advantages to students. Programs are accessible from anywhere and study can be structured around job or family responsibilities. Courses can be streamlined, condensed, or accelerated. One of the key features of online learning that differentiates it from distance education is in the opportunity for interaction between teachers and students via online asynchronous discussion forums (Mazzolini and Maddison 2003). However, although online learning offers flexibility for students to “collapse time and space” (Cole 2000), working within their own time frame and work schedules, it is essential that the learning materials and activities are carefully designed and implemented in ways that support students in effective engagement that encourages high quality learning. Dropout rates for online courses are notoriously high and it is extremely important for educators to design effective online experiences to ameliorate such high drop-outs (Lee and Choi 2011). As Berge (1999) and Northrup (2001) both note, effective online interaction does not just happen. Effective online learning brings together collaboration, interaction, participation, personalisation and productivity (Ossiannilsson and Landgren 2012). Collaboration is often conducted within a Learning Management System (LMS) via an asynchronous online discussion forum. Online discussion forums are designed to promote interactions that build deeper understandings of course content (Wozniak and Silveira 2004). Through the establishment of collaborative, networked learning environments, students are encouraged to be enthusiastic participants in a community of practice and inquiry (Sims and Bovard 2004) by being actively engaged in meaningful conversations with online peers and teaching staff.

According to Palloff and Pratt (2011), within universities there is a “myth” around online education that asserts that “it is easy to teach online – all one needs to do is to move exactly what was being done in the face-to-face classroom into the online classroom” (p. 342). However, as Garrison, Anderson and Archer (2001, 3) indicate, “teaching in online courses is an extremely complex and challenging function”. Capturing a video or I-Lecture or posting a PowerPoint into a Blackboard site is not online teaching. Teaching online is not just a technical and administrative process that allows content to be delivered on to a computer. Making content easily available and accessible does not lead to learning any more than
opening a library would lead to a literate local community. Content only becomes ‘alive’ when integrated and related to meaningful learning and pedagogical processes (Ravenscroft and Cook 2007). Learning activities need to be “pedagogically sound, learner-focused and accessible” (Laurillard 2007: xv). Although many university lecturers use technology to support their teaching by the use of such tools as interactive whiteboards, making lectures available online and providing digital library access, none of this is particularly “transformational” (Laurillard 2007: xv). Teaching staff are required to develop new skills to meet this new style of teaching and learning. Palloff and Pratt (2011) consider that members of teaching staff are rarely given the level of training that is required for effective online teaching. On many occasions, tutors are brought in at the last minute with little or no training; and when training is provided, the focus is more likely to be on the technology rather than on the pedagogy. These authors suggest that training goals are rarely made clear and that there is often little understanding or discussion around what teachers and students need to do to benefit from a quality online teaching and learning experience.

Researchers have suggested that, to provide students with meaningful learning experiences, online learning providers should offer programs that are socially and academically integrated (Kanuka and Jugdev 2006). Shin (2003) posits that the perceptions of “psychological presence” that are held by students around teachers and online peers can be significant predictors of successful outcomes within the online environment. Angelino et al. (2007) stress the importance of forming cohort relationships supported through online interaction, and Jawah (2006) identifies interactivity and interaction as key success factors underpinning the pedagogy of online learning. Interactions and issues relating to them are one of the most frequently discussed topics. These are of critical concern to online educators. The term “interaction” is given a range of meanings in the literature. According to Garrison (1997) interaction is sustained, two-way communication among two or more persons for purposes of explaining and challenging perspectives. Gilbert and Moore (1998) consider interaction and interactivity to be one and the same. They define it as “reciprocal exchange between the technology and the learner,” while Wagner (1994) believes that they are two very different processes. For Wagner, interaction is “an interplay and exchange in which individuals and groups influence each other” where there is evidence of “two reciprocal events requiring two objects and two actions” (Wagner 1994: 20) with the focus on human behaviour. She considers that interactivity has a focus on the characteristics of the technology systems that support the establishment of connections. Even if the distinctions are accepted, it seems that both qualities are linked and both are necessary. Online interactions could not occur without technologies that allow high interactivity – person to person, person to group and person to system or learning material (Roblyer and Ekhaml 2000). From the student’s perspective, interaction is the communication between student and subject content, student and teacher, or student and student (Moore 1989). Each type of interaction is likely to have different effects on achievement and attitude to learning.

The interaction between pre-existing knowledge and the information that is provided in the learning materials is a critical factor. A constructivist approach to learning must provide not only the environment and the tools for the active construction of knowledge, but also appropriate feedback on the learner’s progress (Mayes and Fowler 1999). These authors describe learning as a cyclical development that travels through three stages:

• Conceptualisation, where learners interact with their own and other people’s concepts through an interaction with pre-existing understandings and new expositions;
• Construction, where learners apply and test new conceptualisations as part of their engagement with learning tasks to create their own framework of understanding; and
• Dialogue, where learners create and test new conceptualisations through conversations with tutors and fellow learners.

Faster Internet and Web 2.0 tools have enabled online educators to construct learning environments that encourage participation and productivity. Such tools allow for much more
meaningful production of materials associated with the topic being learned and for a learner’s initial understanding to be made much deeper. Such motivational production of materials affords better participation and engagement for online learners (Ossiannilsson and Landgren 2012). In addition, the availability of information sources across most subject domains through the Internet now aids the construction of online courses. Such information is also now available in multiple formats that can be utilised effectively for student engagement and can be accessed via multiple sources to ensure better consolidation of learning.

Swinburne Online a new partnership

In 2012, Swinburne Online began offering a highly engaging and productive learning experience. Swinburne University partnered with SEEK Limited to create Swinburne Online. Swinburne University and Swinburne Online have created learning modules specifically designed for 100 per cent online delivery to meet the needs of working Australian adults. Swinburne Online delivers Swinburne University accredited courses that adhere to Swinburne University academic standards and procedures. Students enrolled in such courses are Swinburne University students and have the same access to resources as do their on campus peers.

Along with the Swinburne/Seek Partnership, there is also a working relationship between Swinburne University academics and Swinburne Online Academics. Subject matter experts from across a range of campuses at Swinburne, work closely with Swinburne Online’s teams of Academic Program Directors, Learning Designers, Learning Technologists and Information Specialists to develop programs that bring Swinburne University’s highly respected academic curriculum together with best practices in online learning. Swinburne Online’s model provides a ‘high touch’ service for its students.

As stated earlier, Salmon’s five-stage model is the basis of the framework around which all units are designed. Utilising the latest technologies and online practices, students find themselves in groups of around 25 students, supported in their learning by expert discipline professionals, known as eLearning Advisors (eLAs) who have relevant experience in the field. These eLAs have undertaken appropriate training, provided by Swinburne Online and used as part of the selection process, to ensure they are well equipped to teach online. Students are encouraged to become collaborative members of their learning group by taking part in weekly online activities that inspire peer-supported learning through discussion and engagement. Teaching staff support their academic learning through regular communication and feedback to build student confidence and to foster an online community of learners.

Salmon’s 5 Stage Model

As stated, all teaching staff working within the online units are specifically trained in the model of online learning developed by Professor Gilly Salmon, Swinburne University’s Pro Vice-Chancellor (Learning Transformations). Her focus is to meet the needs of the iGeneration and lifelong learners.

There are a number of advantages online learning has over more traditional learning environments. Online learning enables virtual exploration – we can participate in virtual classrooms, or explore learning ideas and development in ways that cannot be replicated through reading a book. Through shared communities of learning, students can explore, contribute, share, reflect and construct knowledge. It is clear that well designed and delivered online education offers a number of benefits for students – not only mobility, flexibility and interactivity, but also the quality of the learning experience.

Although it is thought to be essential that a range of interactive opportunities should be made available and supported by both staff and students, it is also important to take other factors into account. If, as Salmon believes, online learning is a “transformation” that occurs in “leaps and bounds” (Salmon 2011, p.31) and is an environment where students are required to
develop skills in computer networking alongside their learning about the content, some knowledge of the development of skills is important. Salmon defines this process as following a pattern that develops in five stages. This model has implications for both teachers and learners and these implications are in the forefront of all unit development processes.

The fact that learning takes place in a social context is at the basis of the whole learning design process. During the first stage (access and motivation) students and staff are encouraged to participate in activities that allow for everyone to get to know some details about one another. This is to encourage relationship building, allowing students to feel confident about working with their fellow students, along with development of online technical expertise.

During the second stage, online identities are firmly established and the beginnings of interactive processes are encouraged. However, it is acknowledged that collaboration is much more than social engagement.

Stage three activities begin to develop expertise in the sharing of information and ideas. This is the start of cooperation with others in collaborative ways. Students use a range of collaborative tools such as wikis to support this collaboration and are encouraged to clarify, refine and consolidate their thinking through this engagement.

At stage four there is an expectation for high quality collaborative learning that is something much more than a collection of individual pieces of knowledge shared with others. Students are expected to be involved in knowledge construction, where the insights and solutions could not be created without whole-group participation and involvement.

As students reach the final stage, students are encouraged to think metacognitively by critically reflecting on the learning process and their individual involvement in everyone’s learning.

As identified above, each stage requires students to develop certain technical and collaborative skills and requires different support and scaffolding by teachers. This is part of the online tutor development process.

**Development of Swinburne Online: challenges**

Since its conception, Swinburne Online has been in a constant state of development. This continues given the massive task ahead of it with continuously expanding enrolments.

As previously stated, it is not merely a matter of throwing existing courses online by converting what is articulated in a lecture into electronic text. In order for online courses to be successful they must be innovative and adhere to good online practices, as described earlier in this paper. As such, it has been important for Swinburne Online to develop efficient and effective processes to build online courses that may have already existed as face-to-face courses as well as to develop courses from the ground up, such as Pre-Service Education, which has its own distinct challenges (e.g. how to deal with practicum school placement requirements online).

Such rapid development of online courses, from a range of starting points, has been challenging and has required the rapid employment of staff with a variety of skills, from technical and specialist online learning design skills. An added complication is the merging of traditional tertiary structures (Swinburne University of Technology) with industry partners (Seek Ltd).

One major challenge has been overcoming people’s perception of online education as being sub-standard to the more traditional face-to-face courses. In essence, the vast majority of people (even some seasoned educationalists) still take the view that it is essential to have ‘the expert’ up in front of the students to enable them to understand the materials being offered and to ensure that they are learning the correct material. Often these fears are somewhat mitigated when they realise that the online students will be supported by e-learning advisors.
and student liaison officers who are very active in the learning process and available, rather than being left to their own devices.

Another challenge that has faced pre-service teacher education courses is how to support students whilst on work-based experience (practicum). In such circumstances it has been important to recognise the expertise of teacher mentors who work in schools rather than sending out university-based tutors to support and assess students on placement. In order for such a system to be successful, it has been important to consider support for the teacher mentor through online professional development and clear guidelines for supporting and assessing students in the workplace.

Conclusion

Needing to keep up with the exponential growth of broadband technologies and user demands, online education is rapidly becoming more sophisticated. It is adopting online pedagogies designed to connect learners through collaboration, interaction, participation, personalisation and productivity. Swinburne Online is a new online provider formed through a partnership between Swinburne University of Technology and Seek Limited. Using the most up to date techniques for engaging learners in online education and well-trained and industry-experienced eLearning Advisors and Student Liaison Officers Swinburne Online aims to ensure a collaborative, supported and connected community of learners. The rapid development of these courses, however, has required the rapid growth of specialist staff able to transform traditional education into innovative online courses and the adoption of processes designed to deal with such rapid growth. This investment is essential, given the changing nature of education in Australia.

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Cite this article as: Grimley, Mick; O'Hare, Sheena. 2013. ‘Developing online education in partnership’. Telecommunications Journal of Australia 63 (1): 13.1-13.8. Available from: http://tja.org.au.