



## **Bridging the gap – engaging distance education students in a virtual world**

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Following a review of the provision of courses in the School of Information Studies (SIS) program at Charles Sturt University, academics in the school worked with learning and teaching services to design and implement a variety of teaching and learning activities in the online environment in order to address the challenges of distance education (DE). These challenges included high student attrition, lack of motivation, a sense of isolation and a need for greater and improved communication. A new model of teaching was developed with subject provision now fully online, utilising a range of social networking software, with the aim of creating a more engaging and sustaining learning environment to help overcome the isolation often noted by DE students. This paper outlines the outcome of the course review and reports in particular on one aspect, the development of the SIS Learning Centre in Second Life, where students and teachers meet to engage in new and innovative learning and assessment activities designed specifically to encourage greater communication and connectivity between DE students.

Keywords: LIS education, e-learning, distance education, Second Life

### **Background**

The School of Information Studies (SIS) at Charles Sturt University is the largest provider of degree level education for the library profession in Australia, including teacher librarianship, and graduates around half of all the undergraduate and postgraduate Library and Information Science (LIS) students in Australia (Heazlewood, Pymm & Sanders 2006). The success of CSU's LIS programs has enabled the School of Information Studies to build a relatively large faculty, covering the full range of librarianship specialisations, offering nearly 100 subjects across both undergraduate and postgraduate programs. It was from this position of strength that the School approached a faculty restructure in 2008 that significantly altered its lines of reporting and accountability. This restructure provided the opportunity and incentive to review the existing curriculum of the School, with a view to expanding its offerings, improving the distance education (DE) student experience, reducing student attrition and further cementing its predominance in the Australian LIS education market place.

## Distance education: facing the challenges

Since 1989, the School of Information Studies LIS programs have been offered in distance mode only. This suits the School's student profile of largely mature-age students, often with family and work commitments, and fits with the University's commitment to regional education. Distance education, of course, entails a number of challenges for lecturer and student. The challenges that need to be overcome include communication difficulties, lack of student motivation, high drop out from courses, provision of support at a distance and a sense of isolation or lack of student community. For instance, Moody (2004) notes that problems such as the mode of delivery, difficulties in establishing a learning community, and a loss of personal contact diminish the value of distance learning and contribute to high attrition rates. Student feedback over many years both within CSU and in the literature more generally (Yildiz & Chang, 2003; Zhao et al, 2005; Beldarrain, 2006; Keppell, Au & Chan, 2006; Garrison & Vaughan, 2008) suggest that building connections and engagement with lecturers and students are important factors in ensuring a positive student experience when studying off-campus.

The School has consistently sought to meet the challenges of distance education by adopting a range of approaches that will effectively engage the distance learner. That it has been successful at this is demonstrated through the success of the courses in a highly competitive field where over the last 30 years a significant number of LIS schools have closed worldwide (see for instance, Barron, 1991; Saracevic 1994; Willard & Wilson 2004; Ocholla & Bothma, 2007; Partridge, Yates, Hughes & Henninger 2010). It has managed this by responding quickly and effectively to the changing environment within which the library and information professions exist and by maintaining close links with the professions it serves. In order to maintain its leading position in what is a rapidly changing field, it has been essential to ensure course materials and teaching strategies have been regularly reviewed and evaluated. The latest course review in 2008 recommended that the courses and their subjects move to a fully online learning environment, in order to provide the platform for exploiting the affordances provided by increased use of educational technology.

This recommendation was adopted and, during the period 2009/2010, 28 new subjects were created and 25 subjects were reviewed, updated and enhanced to run fully in the online environment. To support this work, the school invested in the services of a full-time educational designer, who worked with the curriculum renewal team on course and resource design. The revised courses were launched at the end of 2009 and the results of their first year in operation are now being assessed. One highly positive result has been that for 2010 and 2011, enrolments at both undergraduate and postgraduate levels have risen considerably – for the first year of offering the revised programs, by 15 per cent at the undergraduate level and 36 per cent at postgraduate level.

Central to the new online model is a student-centred curriculum that enables active and collaborative learning. The subject materials consist of a set of learning modules for each subject, with integrated online activities and resources. The modules are accessed through the subject portal, CSU Interact (Sakai), thus ensuring a consistent and familiar online learning environment for students across subjects. The subject outline, interactive discussion forum and other tools for communication, assignment submission, evaluation and web content are accessed through the same portal.

One of the major reasons for adopting an online model was to address two of the key issues associated with distance education – the amount of reading required and the isolation and lack of a communal student experience. In this new learning approach, student development is fostered by providing an environment that exploits contemporary methods of communication, information seeking and knowledge building through the use of social networking technologies. The success of this approach has been confirmed through the positive student evaluations received for those subjects that most strongly engage with the new model, for example, those subjects exploring technology integration in organisations, social networking and digital preservation. As one student in the digital preservation subject noted,

‘The *Second Life* component of the subject was highly beneficial, especially for the opportunity to interact with fellow students and academic staff beyond the forum and chat room.’

For some students the technology is challenging at first, particularly in those subjects integrating the use of

synchronous learning environments such as *Second Life* (Hay & Pymm, 2011). However, the networks and support enabled by the technology provide an enriched learning environment where they share, build and create knowledge with other students as well as faculty. In effect the technology creates an environment where inquiry and learning can take place more effectively and with more enthusiasm than one in which students study in isolation from others. For many, of course, the a range of communication and collaborative technologies are already part of their everyday communication, social and work life and the online learning environment provided as part of their CSU studies becomes an extension of their experience.

## Engaging students in learning

The move to online provision of its courses presented SIS with the opportunity to develop a range of coherent and imaginative resources, designed to engage students and foster deep learning. Embedded across all courses are activities designed to suit many learning styles including online readings, short lectures via podcast and video, screen capture demonstrations, online tutorials and activities from a range of sources, including state and national libraries and so on.

The dynamic online learning model adopted by SIS lends itself particularly well to contributions from guest lecturers – academics or professional experts. Inclusion of lectures and tutorials for instance can be spontaneous and opportunist, where previously they had to be planned well in advance and delivered to students with their mail package on video or CDROM. As in the ‘real’ world, lectures can be recorded in the virtual world and made readily available so that students with different study patterns, or from different time zones, can access them at times convenient to themselves. It also enables experts from around the world to provide high-level lectures, share their knowledge and experience and participate in discussions which would be impossible in any other way. Given the School’s strong links with industry, this more ad-hoc approach allows ready participation from leaders in our field at times that suit them.

Thus the expansion of students’ knowledge building is facilitated by the new model which affords far greater opportunities to provide up to date and targeted (just in time) resources. Lecturers and students identify and source new resources as they are required and can provide links, resource lists, sometimes in a wiki, or using a social bookmarking tool such as Delicious or Diigo. Lecturers also respond to students with feedback and examples, using audio, screen capture technology or voice-over slide presentations, and uploading them to the online learning environment. Positive student feedback for these revised subjects has been demonstrated by increased response rates to student evaluation surveys – for 2010 across all subjects these averaged over 40 per cent compared to around 33 per cent in 2008 – with large numbers of targeted free text comments commenting positively on this new approach.

‘LOVED the variety of formats information was presented in. The mini lectures and weekly chat sessions were sooo helpful’ (Student feedback).

‘The inclusion of YouTube videos and weekly lecturer podcasts was wonderful’ (Student feedback).

Early in 2009 a number of focus groups were undertaken, involving practitioners, employers, relevant professional organisations and other academics to assist in determining future directions for the course. Flowing from this was strong endorsement for the use of social networking platforms and other relevant Web 2.0 applications in order to try to personalise and improve the distance students’ experience of online study, as previously cited in the ‘Distance education: facing the challenges’ section of this paper. Thus funding was provided to enable all subjects to be redeveloped, with many of these redesigned to make the most of the opportunities offered by the online world and social networking technologies. Thus consideration was given to the use of blogs, wikis, Facebook, Linked In, Skype, Delicious, Twitter, Flickr, YouTube, Etherpad, SlideShare, TokBox, Amazon Cloud Computing and *Second Life* (Hider, Kennan, Hay et al, 2010).

## Learning and teaching in *Second Life*

For this last application, *Second Life*, funding was also provided for the development of a CSU presence in this virtual world in order to exploit the potential for DE teaching offered by such an environment. It was anticipated that the *Second Life* CSU-SIS Learning Centre (as illustrated in Figure 1) built in the second half of 2009, would provide an immersive synchronous 3D learning environment offering the opportunity to further develop student interaction and provide space for new and innovative teaching and assessment activities (Hay & McGregor, 2010; Hay, McGregor & Wallis, 2009).



**Figure 1: CSU-SIS Learning Centre (ground level) in *Second Life***

*Second Life* is a three dimensional virtual world created by Linden Labs in 2003 which can effectively mirror the 'real' world. Users can join this world by creating a virtual presence via an avatar, or by developing space in the form of an island, a building or even a classroom. Within the *Second Life* environment avatars can talk to each other using text chat and voice (VoIP), and interact with each other using movement, gestures and sound. This environment provides distance education students with an opportunity to meet and participate in discussions, debates and excursions, complete simulations and role-play activities, be involved in virtual tours and quests, and listen to real-time lectures and experience interactions with experts as virtual guest lecturers (Gregory, Willems, Wood, et al, 2011; Gregory, Lee, Ellis, et al, 2010).

Warburton (2009) identified a number of affordances that *Second Life* offers, two of which are of particular interest in the SIS project: extended or rich interactions, and community presence (p.421). A synchronous virtual learning space could help students overcome the isolation factor, develop collaborative skills, and experience creative opportunities, all of which are expected to promote greater engagement and learning.

In order to prepare students for the learning tasks and activities they will encounter in *Second Life*, lecturers provide training sessions in the CSU-SIS Learning Centre. A standard training kit has been developed as part of the Learning Centre design to ensure all lecturers and students are provided with the same training and guidance (no matter what the subject). This helps reduce the preparation for staff in providing training sessions, and allows individual students to revisit the instructional slides and learn how to customise their avatar at their leisure.

Undergraduate and postgraduate social networking subjects are offered across three teaching sessions per year. These subjects require students to complete a number of immersive learning activities as part of the curriculum, with some of these being offered in *Second Life*. Students are encouraged to attend online discussion sessions hosted by faculty and guest speakers; join a range of professional and educator groups; attend professional development activities; visit a range of libraries, university campuses, professional and education spaces; and

meet with their faculty for individual consultation regarding project design/management and assessment task requirements. All students are required to maintain an online learning journal as part of the final assessment task to demonstrate evidence of their immersive learning experiences throughout the session.

In order to evaluate the success or otherwise of the student and staff experience in *Second Life*, after one year's experience in its use a formal investigation was undertaken. Three broad questions were determined:

- How did faculty feel about the *Second Life* experience?
- How did students feel about the *Second Life* experience?
- Based on student and academic feedback, what recommendations can be made to improve student and staff experiences, and learning outcomes in *Second Life*?

As a case study, the researchers set out to gather a range of quantitative and qualitative data via end-of-session subject surveys; dialogue captured on subject forums, and SL chat logs; and interviews with subject coordinators and other teaching staff. In total, around 70 students were involved via the surveys and the forum/chat sessions.

Feedback from some students who have not previously experienced a 3D virtual environment highlight the concern that it 'takes quite a lot of time' to become familiar with the *Second Life* client, and as a DE learner, if one cannot dedicate the time required to 'play around with it, then you really ... use it on a fairly superficial level'. From a student experience perspective, this highlights the need for educators to ensure the use of a virtual world is carefully considered and integrated part of a subject, rather than merely using it as an 'add on'. Overall, students agreed that the benefits of being connected and 'sharing' the same 'space' are worth the effort within the social networking and preservation subjects at CSU.

Students often compare their *Second Life* experience with those on CSU web forums (which is the principle asynchronous tool used for discussion in most SIS subjects), with the latter paling in comparison, 'you really don't get that intimate sort of learning experience'. The desire to receive one-on-one guidance with faculty or in a small group is also powerful motivator for DE students to 'visit' a 3D virtual campus.

The research team concluded that as a result of their experiences in *Second Life*, they are convinced that it offers a powerful tool to improve the DE experience for all students. The technology is mature enough, most students in developed countries have access to sufficient bandwidth, and growing familiarity with Web 2.0 type tools means that, for many students, it is becoming less of an unfamiliar experience. For staff, there is a significant time commitment required to establish the initial activities but, with growing familiarity and use, this time commitment will fall and the benefits in the shape of improved pedagogies and learning outcomes seems to us clear. At the School of Information Studies, it is considered a commitment well worth making.

## Conclusion

Issues relating to engagement with DE students and developing their concept of a learning community have been well documented. Today, the opportunities exist to design subjects and courses in such a way as they can make considerable inroads into alleviating these drawbacks. One such learning environment to assist in this is *Second Life* where the creation of a virtual classroom has proven to be highly successful in engaging students and improving their levels of interaction, and indeed their whole learning experience. Trialled across four subjects, its success has led to a wider take-up among staff and it will be interesting to follow through with further studies as students generally become more familiar with connecting in a 3D virtual world.

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