

ATTENDING MEDICAL SCHOOL IN VIRTUAL REALITY

Universities are moving modules to the online virtual world of Second Life, reports **Daniel Stott**

Flying into lecture theatres dressed as a cyborg is likely to get you into trouble at most universities. But from September at Coventry University it will be positively encouraged.

Coventry University is pioneering a new MSc course in clinical management which will hold problem based learning groups for students in Second Life, the online virtual world. The course trains students in managing healthcare facilities, and is the first healthcare course to use Second Life as a learning platform.

Other medical schools are following suit and developing modules and courses using Second Life. St George's Medical School, part of the University of London, for example, is looking at ways in which Second Life can be used to help students interact with patients in a safe, simulated environment. Emily Conradi, the school's electronic projects manager, says that in the future Second Life "will enable students from all over the world to gather and hear from expert speakers who could be based anywhere in the world."

Maggi Savin-Baden, professor of higher education research at Coventry University, thinks that Second Life has advantages over traditional types of distance learning: "Students get a greater sense of being in the same room or the same space as other participants in the process. It's more active." At Coventry University's

Second Life island, 10 students are being employed to build learning facilities for the new intake of Second Life learners.

Potential applications

At Cornell University, New York state, academics have pioneered the use of exposure to virtual reality for a range of psychiatric problems. People with phobias of flying, for example, can experience a virtual flight without leaving the safety of the consultation room. Using a computer headset, the patient is exposed to an ascending hierarchy of fear inducing experiences, from taking a cabin seat with the engines off, to descending and landing in bad weather.

A similar intervention involves virtual public speaking, in which the therapist can control the responses of a virtual audience, ranging from ringing applause to an atmosphere of deep boredom and agitation.

At Idaho State University researchers have designed a Second Life learning environment incorporating two islands, Asterix and Obelix. Ramesh Ramloll, a doctor and one of the programmers who designed the islands, explains the attraction of learning in Second Life: "It engages people in a way that traditional methods don't. Also, using Second Life costs dramatically less than designing your own virtual reality environment from scratch, and building environments in Second Life is a collaborative exercise with people

who are experts in whatever field you want to learn about."

Recent exercises conducted on Idaho's islands include a "pavement triage" pandemic flu disaster, during which medics attended to infected patients on the streets surrounding a virtual hospital. "You can get people from different agencies networking and sharing ideas" in these exercises, explained Dr Ramloll.

Pitfalls to watch for

Using virtual reality as a learning application does, of course, pose potential problems as well as possible advantages. Professor Savin-Baden recalls how on one occasion in a Second Life tutorial "a scantily clad young lady turned up and asked if she was at a nightclub." Access to university islands can, however, be locked by administrators, meaning unwanted guests can, in theory, be kept out.

Professor Savin-Baden says that some students are initially lukewarm about the idea of having an element of their course being conducted in Second Life. Students without experience of the virtual world are given tuition in easy tasks, explained Professor Savin-Baden.

Cost is another potential stumbling block: maintaining and programming environments in Second Life may be cheaper than designing virtual solutions from scratch, but the costs may still be considerable. In addition to the £6000 (€8600; \$12500) paid for Coventry University's island, Professor Savin-Baden says that a further £20000 has been spent on programming. Costs are also associated with making sure that computers on campus are powerful enough.

There is some debate about whether spending money on virtual learning platforms constitutes a worthwhile investment, but some university marketing departments have already spotted the potential that having a virtual presence offers in terms of college branding and attracting future generations of computer literate and Second Life savvy students.

Hamish MacLeod, senior



lecturer on the MSc in learning course at Edinburgh University explained, "I have had one or two enquiries about the masters course from prospective students who have made a point of visiting Holyrood Park [Edinburgh University's Second Life campus] before getting in touch—a hint that Second Life can play a role in recruitment."

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How universities are using Second Life

The University of Nottingham is researching bullying. About 50 avatars have taken part in interviews monitored in Second Life by an occupational psychologist.

A sex education zone has been developed by the University of Plymouth and Thomas Jefferson University in the United States. It features films about HIV/AIDS and a stand with current sexual health news.

Cornell University is conducting research into post-traumatic stress disorder. Veterans of the Iraq war and the previous Gulf war have been participating in a virtual tour through a combat scenario and their physiological responses measured.

Imperial College, London, has a Second Life version of their real world Sir Alexander Fleming building, complete with teleport signs to the library and lecture theatres.



Intensive care unit in Second Life