

The University of Edinburgh

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Parallel Universe: Learning in the Virtual World

The University of Edinburgh is taking a lead in exploring and developing virtual worlds for teaching, research and training purposes.

In Second Life – a three-dimensional world in which users create digital identities, or avatars, of themselves – tutorials are already taking place in a simulated version of Holyrood Park where there are no desks or whiteboards and where students can 'fly' in to join the group.

This Holyrood Park is a virtual open space in which the School of Education conducts classes with students on the MSc in e-learning. It exists on the University's island, Virtual University of Edinburgh (VUE), in Second Life. Here, participants can talk, work and learn with others in cyberspace.

The MSc programme was one of the first in the UK to make use of Second Life. Programme Director Dr Siane Bayne says: "We have been in two years now and most of our 80 students from around the world use it. It's a way of re-thinking what a teaching space can be. The majority of our students, who are based across the UK, Europe, Asia and Africa, are not on campus; but being at a virtual version of the University within Second Life helps them feel present and connected."

She continues: "As a student you have access to a small-group teaching environment where you can discuss ideas and take part in classes. There are fixed tutorial sessions but students also meet casually. It's about bonding and co-presence in a simulated space.

"Its visuality is probably its biggest motivator. It's a world created and crafted by us, the users, and it creates something of that sense of immediacy you get in real life."

Students and staff on the course agree that Second Life breaks down barriers between tutors and students and makes distance learning more sociable. "It's a good medium for interacting and socialising with the rest of the group, especially as Second Life enables me to 'see' who I am talking to. That makes group work easier and, importantly, fun," explains student Wendy Jenkins.

Second Life currently has some 700,000 'citizens' worldwide, occupying almost 2,000 'acres' of virtual land.

While the University's involvement in Second Life took shape in the School of Education, it is also being used by a range of other schools including Management and Informatics, and is likely to extend into other disciplines and activities in the near future.

"We are using Second Life because it has a growing international user base; it is sophisticated enough for education and research."

"The School of Informatics has 10 groups using Second Life, mostly for research purposes and there's no doubt that it will be a long-term part of the University's teaching, research and outreach programmes," says Professor Austin Tate, Director of the Artificial Intelligence Applications Unit, whose own research specialism is the application of artificial intelligence to search and rescue work.

Professor Tate also helped set up the VUE group, a virtual educational and research institute bringing together all those interested in the use of virtual worlds for teaching, research and outreach at the University.

"We are using Second Life because it has a growing international user base; it is sophisticated enough for education and research; it has high-resolution graphic realism; and it is an open environment you can use as you want," he says.

"It is superbly suited to animated, interactive teaching aids and is an excellent way of

presenting in ways which the student can interact with. It has all sorts of different resources from video streaming and voice to external programmes and databases and is admirably suited to collaborative projects. It could be used by any school, discipline or subject."

Its potential is also being explored by offices like Development and Alumni and the Disability Office.

Alistair Knock, Assistant Director of the Disability Office (and a student on the MSc e-learning course), says: "Second Life has potential for helping with experiential-based training such as staff development.

"We are looking at having a training course built in Second Life that would allow staff to experience some of the barriers that universities create for disabled people – and, more importantly, to think about ways to remove those barriers."

Eduserv, a not-for-profit professional IT services group offering leading-edge technology to education institutions and public sector bodies, has commissioned a £300,000 research project on education in virtual worlds. Andy Powell, Head of Development at Eduserv, says: "We are still at a relatively early stage in understanding how virtual worlds can be used in education. It's a bit like the early days of the internet. Everybody knows it has huge potential, but they are still figuring out what the best uses might be.

"But for students who for a variety of reasons struggle to communicate, or simply lack confidence in the classroom, Second Life could be just the thing."

The University has long been supportive of using innovative technologies to expand both the experience of students and the boundaries of research. "The University of Edinburgh has been involved with virtual worlds for over 20 years," says Professor Tate. "As educational and research users in a UK context we have always been and will remain pioneers."

Professor Austin Tate,
Director of the Artificial
Intelligence Applications Unit





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