Game on

Second Life creates new learning opportunities for Imperial medics

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A group of third year medical students have been accessing virtual patients on a three-dimensional respiratory ward in Second Life as part of a pilot study of game-based learning. A total of 24 students are participating in the pilot, which is comparing their knowledge of key data with that of 21 students taught via an online module.

Second Life has grown explosively since its launch in 2003 and the opportunities created by this online world are widespread. First-time users are invited to create their own unique virtual persona in the form of an ‘avatar’, which they then operate to participate in Second Life activities.

For the medical students using Second Life, once inside Imperial’s virtual hospital, they are welcomed by the Head of Undergraduate Medicine, Professor Jenny Higham. They encounter teleport signs to the ‘students union’ and ‘research centre’, where they can interact with other users, and are directed to the respiratory ward.

On the ward, students have access to virtual patients with different medical conditions who they can examine and provide different diagnoses for. Financial and hygiene issues are embedded in the delivery of each case. Students are given credit to buy different investigations, and certain triggers, such as not washing hands, will halt their investigations.

The organiser of the pilot project is Senior Learning Technologist Maria Toro-Troconis, who is completing a PhD in game-based learning within the Faculty of Medicine and Luleå University of Technology, Sweden.

She says: “Imperial is one of the first universities in the UK to be trialling this sort of technology. It is a really exciting opportunity to show everyone within the College how applied game-based learning in a multi-user virtual environment (MUVE) can be used to enhance face-to-face teaching.

Initial findings from the pilot show that while students are generally receptive to working within the learning environment, they have problems with access and need time to feel comfortable interacting with the virtual patients. Maria explains that the virtual ward can become very crowded when students are working there at the same time.

She comments: “This is very much the beginning of applied game-based learning. The way it evolves and becomes part of our mainstream learning and teaching activities will depend on how the technology grows and becomes familiar to us.

Maria was in charge of writing the specification for Imperial’s region on Second Life, working alongside Professor of Respiratory Medicine, Martyn Partridge.

Maria explains the process: “We wanted to replicate all the teaching hospitals but that was very challenging. Instead, we recreated the Sir Alexander Fleming building as our main teaching hospital, with the Queen’s Tower as a recognisable landmark. Other features, including other faculties and departments, can be added as interest in the site grows.”

Maria believes that demand for virtual patients is a result of new challenges in medical education: “A shortage of doctors and higher numbers of students mean that there is less time for teaching. Virtual patients, especially in three-dimensional format, can be of real value in supporting clinical teaching.”

She adds: “Second Life is a reflection of where the Internet is going. The aim is not to replace face-to-face communication, but to enhance the learning experience.”

—WENDY RAESIDE, COMMUNICATIONS

To explore Second Life, visit: www.secondlife.com

To find out about Imperial’s virtual hospital, visit Second Life on: www.elearningimperial.com