ERGA Conference – The Changing Face of Education in the Humanities Seminar, Wednesday September, 2010

One of the reasons for establishing a research project into the use of virtual reality in the Humanities is the identification of not only the benefits of this technology but also of the any associated problems one might encounter when implementing it in Australian universities. And we ran into a major IT problem when I wanted to connect my personal lap top to the university network in order to show you a student project today. So, despite my and Edward Palmer's best efforts, I am reduced to the regular internet and power point slides: a slight but disappointing tweaking of my paper.

Secondly, I should mention that I am representing a team of researchers involved in a two-year project (funded by the Australian Learning and Teaching Council) and entitled 'Getting A MUVE On: Developing Web 2.0 Curricula in the Australian Humanities'. The team at the University of Adelaide consists of the Project Leader Professor David Lemmings, Lisa Mansfield and myself from the Discipline of History, Cathy Speck from Art History and Mandy Treagus from English. It also includes historians Helen Brash (from from our partner institution Murdoch University) and Sharon Crozier de Rosa from Flinders who is working with us in an academic and administrative support role. We are trialling a MUVE in a virtual reality platform in order to establish its pedagogical and practical value as a learning and teaching environment in the Humanities. Teaching in our MUVE, a simulation of part of 18th century London began last semester with my pilot course on Georgian London and continues this semester with Mandy's 'Body Language' course.

Now, we're about 30 seconds into this paper and I've already been throwing about with gay abandon terms like 'MUVE' and 'virtual reality platform' which may be as new to you as, until quite recently, they were to me. I'm an historian - give me a book and I'm a happy woman - and until I began research for this project I knew nothing whatsoever about virtual worlds. In fact, if asked, I'd

have said that a MUVE was something one attempted on the dance floor. I imagine that, while some of you are no doubt better-informed about this technology than I was, most of you will probably have a few questions which I hope to answer during the course of this paper.

The first question that probably sprang to mind is: what is a MUVE? MUVE stands for Multi User Virtual Environment. MUVEs are made possible by the so-called second wave of development of the internet or Web 2.0. Web 1.0 is the internet with which we as researchers are familiar – it allows access to information. Web 2.0 is interactive - I'm sure we've all heard of social networking sites like facebook and the multi-player game World of Warcraft but Web 2.0 is capable of much more than that. Indeed, whether we are ready or not, it is on the verge of transforming our lives in many ways – and education in virtual reality is one of the ways it is already doing so.

If you are anything like me, **this** is probably what you think of when someone mentions virtual reality. And you might well imagine that the graphics look something like **this**. Well, in a few short years, virtual reality has come a long way. No longer the province of futurists and teenage 'gamers', using virtual reality is now more like **this**. The project team opted to trial the platform or virtual world, most popular with educators, called Second Life. At this point you might well be asking: what is Second Life? Well, rather than try to describe it, it's probably better to show you a short video clip from its website.

Play What is Second Life

So, how are academics using this technology to establish MUVEs for educational purposes? During the last few years such MUVEs have forged a significant - and rapidly growing - place in vocational training, the museum industry and in university education, particularly in the United States and the UK. Universities, including **Princeton, Stanford and the University of Edinburgh**, are offering real-time courses and establishing entire campuses in Second Life. And, the Australian academy is now rapidly catching up – getting a MUVE on as it were. Currently Australian universities are exploring its uses in training paramedics, commerce, criminology, engineering, pharmacy and fire investigation amongst others.

Indeed, as education scholars tell us, cognition occurs when we apply or *do something* with knowledge in a "relevant environment". One of the best examples of this is the River City MUVE developed by the Harvard Graduate

School. River City is a simulation of a **hypothetical town** into which Health Science students are sent as avatars to investigate the outbreak of a contagious but unidentified disease. Working in small groups students interview residents, explore the area, capture insects and take samples of river water. They conduct experiments, locate the source of the disease and diagnose and treat patients. In the words of one education theorist: traditional assignments which foster such "active engagement of learners in rich learning tasks and the active, social construction of knowledge and acquisition of skills, are rare".

Another example is that of Loyalist College in Canada. Loyalist trains the customs and immigration staff who work at the US Canadian border. According to Loyalist's case study report, in the wake of 9/11, their students were no longer able to train alongside professional border security guards; an experience which had previously allowed them to

experience the [security tasks, people management skills and] daily routine of their future job. ... Training suffered until the Director of Educational Technology at Loyalist College catalyzed **a virtual border crossing simulation** in Second Life for Loyalist students... led to significantly improved grades on students' critical skills tests, taking scores from a 56% success in 2007, to 95% at the end of 2008.

The successful River City and Loyalist MUVEs clearly provide students with a relevant environment in which to apply knowledge learned in class and through reading. In terms of cost, MUVEs offer highly flexible and extremely cost-effective learning and teaching spaces compared to the cost of brick and mortar buildings and their maintenance.

Of more importance to students and teachers is the fact that this technology is capable of producing a rich, immersive, collaborative and interactive learning environment. Yet, its use in the Humanities is so rare that this is the only Australian trial in the Humanities. Indeed, the only other example we know of is run by Katherine Ellison of the English department at Illinois State University in the US.

As an historian I, for one, have been frustrated by what seems to be an increasing lack of historical imagination amongst today's undergraduates in particular who were raised in a time of rapid technological advances and thus seemingly unable to imagine life without the internet or the mobile phone. Nor can historians take our students on a field trip to the streets of modern London –

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let alone back in time - but can virtual reality stimulate their historical imagination? Could it provide *their* "relevant environment" - which is necessarily located in the past? Could we use technology, as it were, to counter the effects of technology?

With that question in mind, each of the 'Getting a MUVE On' project members is trialling Second Life in their own way and with their own questions in mind. Some will be designing assignments to use in it, some will not. Helen Brash at Murdoch will use it as a role-play setting for distance education. I personally want to know if it will help to build students' research skills and/or stimulate an interest in research. The course I taught last semester, therefore, asked students to conduct a project in SL in preparation for a research essay. With a due date two weeks prior to the essay, the project required them to choose a space in the virtual London, furnish it and provide interactive evidence in it of the research they had conducted for their essay. This required them to provide note cards which they wrote themselves, a bibliography, links to online documents and journal articles or scholarly websites. And, of course they had to follow the scholarly conventions of referencing etc.

What did we learn from this? A couple of unexpected things occurred before the project was completed. The first was the level of stress this project initially caused many of the students. It may of course be that Humanities students are simply not like science students or border security guards. For many, their first reaction was "I can't do this – I'm no good with computers". I was amazed at the level of self-imposed pressure these students expressed – they expected so much of themselves and were really dismayed when they found they didn't know how to do quite complex things as soon as they first logged in for the very first time. (Interestingly, this trend has extended into the training workshops I've since conducted with Humanities lecturers!)

The second, once they calmed down (and once we sorted out some IT issues), was the astonishing level of ownership they took of their research. Once they had an avatar and had **claimed a space in week 3**, the interest and even pride they took in their project spaces and with which they spoke in class and in SL of "my research" and "my space in Georgian London" was something I had not expected. They took enormous care over what their avatar should look like, what its name should be, who it represented, what kind of shop or room their project should be and every item that went into it. They were so engaged that they were conducting and discussing research in week 3 and 4 for an essay due

in week 13. They bombarded me with questions about buildings, drainage, why were there no bathrooms, the exact colour of 18th century brickwork, shoe construction, the weather conditions on the day of a particular historical event – the list goes on. Also, the level of student to student and student to teacher communication went through the roof. These students were talking more often and more openly with the anonymity of their avatar's identity. They voluntarily got together after class and on weekends to discuss their projects, to locate sources and help each other find their way around the virtual London.

There were problems with student access to suitable computers on and off-campus so some opted for a written version of the project. There were problems with Second Life itself. In the middle of the first workshop, for example, Linden Labs (who own Second Life) decided to do some unscheduled maintenance and disabled log ins. From the teacher's perspective, I also learned a tremendous amount about time management and efficient building in Second Life. The students told us some very interesting things in SELTs and their Reflective Journals. Some students loved it. A few hated it and would rather have done a traditional essay (usually those who do well in essays). Some bemoaned the loss of tutorial discussion in the weeks when there were workshops (usually those who do well in tutorials). Almost all said it either brought the subject matter to life, enabled them to visualise the period better or had changed the way they thought about reading documents. AMiddlingSort Flagon (in his early 70s) changed his mind: "I believe it has value (what a backflip). ... did make me think about being there rather than just reading about it".

Did it stimulate an interest in research? According to

<u>Darcy Livingston</u>: "What SL did for me was to force me to research topics I wasn't planning on. I was going to just research the costumes in theatre before entering my space. When I got in there I discovered how much room I had and how much more I needed. I then was able to extend my project to include all design aspects and backstage life. Because of this I ended up spending hours in the library researching design and theatre in Georgian London and I found myself absolutely enthralled with what I was reading.... It opened my eyes as to what changes the period really made and I was absolutely hooked."

<u>And Eleanor Farstrider wrote</u>: "I was initially quite reserved; the added dimension of graphic design seemed a bit daunting. However, the act of making an interactive environment encouraged more

creative perusal of historical information ... I think it definitely helped to develop my understanding of the period as it encouraged meaningful thought."

And now I'd like to take the last couple of minutes to show you a couple of slides of a student project, undertaken by Charlotte Palfrey.