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Virtual Teaching

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Abstract

The potential of online virtual environments, such as Second Life for delivering remote learning continues to be debated by academics. It would appear to offer particular opportunities to support remote learning in art & design, where there is a particular requirement for live visual interaction.

The School of Art, Design & Printing at the Dublin Institute of Technology (DIT) received funding to develop a module for undergraduate students to test this theory. A five-credit module (under the European Credit Transfer System) received formal approval from the Institute in 2008 and was delivered as a pilot to academic staff interested in exploring virtual environments for the purposes of learning and teaching. This was followed by the first delivery of the module to undergraduates in art & design as an elective module in the first semester of the 2009/10 academic year.

A thorough knowledge of virtual environments and social networking communities is increasingly essential for those working in what could be described broadly as the content creation sector. The module encourages participants to explore this area and exploit the opportunity to create and manage their online presence and begin the process of building and maintaining an online personal brand. The paper describes the delivery of the module, the challenges encountered and reports on feedback from participants. It also suggests a framework for lecturing in Second Life based on what was successful in this instance and what was not.

Keywords: Virtual Environments, Second Life, Art and Design Education

Introduction

Probably one of the greatest challenges to education in the early part of the 21st Century is the new social dynamic emerging as a result of the wired world. The present generation is more connected than ever before. Not only is there twenty-four hour access to the full wealth of the web but there is also an ongoing conversation facilitated by a range of mobile social media applications. Many conversations are being had simultaneously. For instance, while I am talking you here it is probable that only part of your attention is on my words. I am pretty sure some of you will be using mobile phones or laptops to send text messages, comment on Twitter, update Facebook, post to your blog or browse YouTube. Surely, this must be the most significant influence on our social interaction since

the development of print? And, as such, it is going to challenge the way we learn and therefore the way we teach.

"...digital media link over a billion people into the same network. This linking together in turn lets us tap our cognitive surplus, the trillion hours a year of free time the educated population of the planet has to spend doing things they care about. In the 20th century, the bulk of that time was spent watching television, but our cognitive surplus is so enormous that diverting even a tiny fraction of time from consumption to participation can create enormous positive effects." (1)

Some years ago, in an attempt to respond to this phenomenon, I developed a module that engages with these new modes of communication and invites students to explore them from a professional perspective. The intention is to encourage a reflective engagement rather than a thoughtless acceptance of this dynamic. Students who take the module become aware of the power of online social media to promote their own personal brand and develop their professional lives. In addition to exploring Facebook, Twitter, blogging and other forms of social media students experience the power of online virtual environments because all the classes are taken in the virtual world known as Second Life. Taking the learning out of the familiar studio or classroom setting and re-placing it in this virtual space changes the normal interaction between teacher and student and allows for a greater sense of exploration to develop in the students minds. The setting of specific tasks for the students encourages them to consider how they might be able to harness the power of these new mechanisms of engagement in their professional lives.

Virtual Learning Environments for Art & Design

A key learning activity in art & design is the critique, more commonly known as the 'crit'. In its most basic form a group of students, under the guidance of a lecturer, present their work while engaging in a critical peer review. This may occur during the work-in-progress stage of a project, or on completion, and the activity may, or may not, be part of an assessment process. In addition to the learning objectives specific to the particular module or project, the crit supports more general objectives such as the development of communication and presentation skills, of an appropriate language and vocabulary, and of a critical perspective upon the products and processes of art and design. This approach to learning – regarding it as a community activity – is supported by Lave and Wenger who suggest that 'the way to maximize learning is to perform, not to talk about it' in a community context (2). Wenger has since elaborated on the concept of 'communities of practice' (now commonly known in academic circles as 'learning communities') describing them as characterised by 'joint enterprise', 'mutual engagement' and a 'shared repertoire' of community resources where learners must have 'broad access to arenas of mature practice' and are engaged not only in learning activity, but in 'productive activity', in order to participate (3).

Much of the thinking around learning communities has been influenced by observing 'virtual communities' such as those that develop in MMOGs (massively multiplayer online games). Writing specifically on this topic Galarneau (4) points to Seely Brown's suggestion that these provide an entirely new kind of social learning experience:

"Understanding the social practices and constructivist ecologies being created around open source and massively multiplayer games will provide a glimpse into new kinds of innovation ecologies and some of the ways that meaning is created for these kids – ages 10 to 40. Perhaps our generation focused on information, but these kids focus on meaning – how does information take on meaning?" (5)

The activity of the crit is to view visual work in a group setting where students engage in a discussion informed by the project brief and facilitated by lecturing staff. Therefore it is a prerequisite that the work can be displayed and is visible to all participants simultaneously. This requires that learners gather in a common visual space, not something that has been possible to achieve satisfactorily with existing eLearning tools

Much work has been done over the years to connect universities via video-conferencing technologies and creating hubs to support interactive visual environments. For example, innovations such as the Access Grid developed by The Rogers Centre at Ryerson University in Canada and a set of virtual tools and Virtual Learning Environments (VLEs) developed by the University of Art & Design in Helsinki were evaluated through a European Union (Minerva Interface II) funded project led by DIT in 2006. The requirement for investment in specialised hardware and software coupled with certain limitations in the recreation of the studio environment common to higher-level art & design education means these developments remained experimental and did not find their way into mainstream education.

The launch of Second Life has changed all that. Second Life, an online virtual world created by Linden Labs, (6) provides a real world environment, a set of flexible easy-to-use building tools and supports the importation of content from external sources thereby offering a very real opportunity for virtual learning that also may have the potential to enhance accessibility: Second Life is available free to anyone with a broadband enabled computer. The environment can host a virtual classroom/studio where faculty and students can engage using voice communication and see real work so that something approaching a real life situation is actually credible.

An environment like Second Life also provides the opportunity for learners to engage in peripheral activities that support a deeper engagement and results in greater understanding and retention. Lave and Wenger suggest that 'other kinds of communities and the forms of legitimate peripheral participation therein hold the key to understanding learning. (2)

Teaching in Second Life

Teaching in a virtual classroom presents a range of issues not least of which is the lack of experience on the part of the teacher. Just like teaching in the Real World, it takes time to understand the dynamic of the teaching space and develop the appropriate learning paradigm. Approval of the module titled "Virtual Environments: Is one life enough?" was granted by the Academic Council at Dublin Institute of Technology (DIT) in late 2008. In addition to testing the viability of the module itself it was deemed necessary to assess the suitability of a variety of teaching approaches so the module was piloted in the January semester of 2009 with volunteer faculty from the Learning and Teaching Technology Centre (LTTC) at DIT, University of Northampton, the Graduate School of Creative Arts & Media in Dublin and the University of Ulster.

Classes were written up in a blog by the teachers to provide a complete record for future analysis. The blog was also used as a support space for the module and became the main communication channel outside of class. In order to ensure focus on the content of the module technical support around Second Life was not provided to participants during class time.

Following the successful delivery of the pilot the module was given its first outing to an undergraduate group in September 2009. On this occasion DIT's Webcourses VLE was used as the primary support tool outside class.

Without doubt, it has taken some getting used to teaching in this environment. Anyone who has engaged in a video-conference or even tried their hand at podcasting will recognise the difficulties. The lack of familiarity with the environment takes us out of our comfort zone. This is aggravated by the fact that virtual world technology is in its infancy and is therefore somewhat unreliable and prone to breaking down unexpectedly. Even when one is familiar with Second Life as an environment teaching there requires new skills. The use of avatars and voice in a visual space means the experience is vastly superior to the traditional text-based chatroom but, it is as far away again from teaching in a real-life classroom. Avatars don't have facial expressions, their lips don't move in sync with their speech, and you can never really be sure who is behind an avatar. It may be your student one week, his friend another week or she may have her entire family looking over her shoulder at the screen.

The pilot deliberately used a range of approaches to deliver material including a formal lecture, directed discussion informed by prior reading, group activity, student presentations, location visits, guided tours and guest lectures. The most successful is the informal facilitated discussion. We held this in the seminar room of the virtual class with everyone sitting in a circle. Each could see the others and the sense of community established successfully. In order to ensure a meaningful discussion students were given reading material at the previous week's class. Clearly, if the students did not engage with the reading in advance we ended up with exchanges of uninformed opinion rather than any meaningful discussion.

This was addressed by extending the class by a half-hour to facilitate reading if it had not been done in advance.

So, as you can see many of the proven approaches to creating an engaging learning experience in the normal classroom also delivered positive results in Second Life.

The importance of metaphor

The learning environment we designed in Second Life is a familiar one. It consists of a formal lecture theatre space with a large screen for PowerPoint presentations, a more informal seminar room and a flexible project room. The kinds of chairs and tables you would expect to find in such spaces are also there. This may seem surprising. After all, avatars should not get tired on their feet, they don't need to sit down, or do they? Why give a PowerPoint presentation in a virtual world? Surely, this is the place to leave convention behind and try a different approach?

Very early on we discovered the importance of the metaphor. Faculty and students needed to feel at home in the space but they also needed to have the space visually identified with the various activities signposted by familiar motifs. Just as in the real life classroom, the layout of the space influences the interaction. The informal seminar room with chairs in a rough circle leads to engaged discussion whereas the more formal media centre with rows of fixed seats indicates to students that a more formal lecture is being delivered.

And, although logic suggests avatars don't require chairs, the real people behind them do. It may be that identifying with our avatars results in us feeling tired if they are on their feet for too long but, of greater importance, however, is the tendency for avatars to wander around the room if they are not seated. This can be distracting for the teacher but it also tends to allow the students' attention to wander and results in disjointed discussion. This is exacerbated by the unreliability of voice in Second Life and can result in time wasted confirming that the student behind the avatar is still in contact.

Student feedback

The most successful approach to teaching in Second Life according to student feedback is the informal facilitated discussion. We held these classes in the seminar room with the avatars sitting around in a circle. Everyone could see each other and the sense of community was easier to establish in this environment. In order to ensure a meaningful discussion students were given reading material a week before the class. Clearly, if the students did not engage with the reading in advance we ended up with exchanges of uniformed opinion

rather than any meaningful discussion. This was addressed by extending the class by a half-hour to facilitate reading when required.

It is necessary for the teacher to work harder than usual at developing the sense of continuity and community so essential to success in the virtual environment. We need to carry out further research to determine the reason for this but my hunch is that there is a tendency for students not to take it seriously at first. Perhaps because the interface resembles a game and the apparent anonymity inherent in not being physically present in class allows students to treat the format more casually.

To overcome this we provided comprehensive support on DIT's Webcourses VLE. Before the module starts the site is well populated with information about the module including the learning outcomes, schedule, summary of the content for each class, assessment requirements and dates etc. We strive to post a summary of each class within a day and log in to the discussion boards regularly. All of this reinforces the sense of a serious engagement with the module by the teachers giving the students a sense of security that Second Life really is a formal learning environment as well as a fun place to be.

This approach needs to be supported by setting activities that require the students to log in to Second Life outside class time. In addition to giving them the opportunity to familiarise themselves with the environment such activities also allow them to take ownership of their time and activities in the space.

Students have reported that they find the structured approach to the introduction of social media and the concept of 'personal branding' enlightening. Even those students who previously have been active in one or other of the platforms do not appear to have given any consideration to the power of a coherent and unified identity across a range of platforms. Once they begin to see the potential for self-promotion their activities move to a new level.

DIT aims to be a learner-centered environment and Second Life gives an opportunity to students who may not be as socially adept in the Real World an opportunity to present themselves again. One student in particular who had problems participating in other classes reported that the use of an avatar in Second Life provided an apparent sense of anonymity resulting in a greater willingness to engage with the community.

Challenges of teaching in Second Life

Initially, the technical challenges are the one's to overcome: learning to navigate in Second Life while giving a talk or facilitating a discussion takes some practice. We found noticeable differences between what you might call digital natives and digital migrants. For instance, the pilot was largely made up of migrants, like ourselves, who tended to be concerned about how to 'work' Second Life. They frequently asked for help in navigating the environment and were clearly

uncomfortable during the orientation phase. This led to distractions from the module content when they requested technical support. The digital natives, as most of the undergraduates could be termed due not to their familiarity with Second Life but an innate comfort with digital technology, in contrast, rarely ask for help in getting around. They seem satisfied to learn as they go and are not in the least uneasy about engaging with the content immediately.

The use of voice in Second Life is notoriously unreliable and can drop out any time due to overloaded connections, bugs in the system and a plethora of other unfathomable reasons. Once again, we digital migrants had greater difficulty with this in the beginning. Eventually we learnt to move between voice and text without interrupting the discussion but the digital natives seem much more at ease and move seamlessly between voice and text.

Just as in real-life attendance can be an issue. Attending Second Life is not like going into a real class. Conversely, we also found that the students turned up to class during the holiday period for the same reason. They didn't seem to quite associate the Second Life class with real classes.

The requirement for a reasonably up to date pc with good graphics and sound cards in addition to a broadband internet connection can be a disincentive and excludes those who don't have access. It has to be accepted that while the use of virtual worlds is becoming more common it is still in the early adopter phase.

Providing access over the college network can be difficult due to security issues. Second Life uses ports that are generally closed and there can be an institutional reluctance to engage with the process of addressing this.

Some recommendations for developing a module in Second Life

It is not advisable to take an existing module taught in Real Life (IRL) and impose it onto Second Life. The challenges described above indicate that very careful consideration must be given to the kind of subject matter suitable for delivery in an online virtual world. Everything from the module content to the style of delivery needs to be specifically designed for this kind of class.

Anyone considering teaching online should familiarise themselves with the environment first. The ability to navigate the world needs to be mastered so that it comes as second nature allowing the teacher to move seamlessly from text to speech and back again and so on. This experience will also help the teacher realise that in Second Life it is always wise to have a Plan B to fall back upon should the environment crash.

The class content must be interactive. Student avatars have an even shorter attention span than Real Life students. Therefore, for example, discussions work better than lectures. However, such discussions should be based on prior reading and actively facilitated by the teacher.

It is very useful to discuss etiquette for class engagement in advance, otherwise classes can descend into chaos unexpectedly and it can be extremely difficult to regain control. So, for example, during a lecture ask students to submit questions to a moderator via instant messaging so that discussion is smoother.

Technical issues should not be addressed in class unless absolutely essential. Establish a technical support discussion forum where students can provide peer support.

It is very useful to have two teachers, particularly when starting to teach in Second Life. Due to the nature of the environment it can be difficult for a single teacher to pick up on all the issues that arise. The second teacher acts as a moderator to ensure points aren't lost. He can also take responsibility for checking instant messages that are easy to miss when you are concentrating on talking.

Limit student numbers to between 12 to 15 until you are confident both in your own experience and the ability of your teaching space to support such numbers comfortably.

Notes

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