

Inter-University International Collaboration for an Online Course

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Abstract

This paper is an account of a collaboration between two international partners in Europe and in USA. The authors outline the origin, design and implementation of an inter-university, online teaching experience. The processes are discussed along with participants' perspectives of the experience. No institutional changes or formal agreements were needed; the course was validated by each institution, designed to address the requirements of each. Responsibility for participant assessment remained with the home institution. Instructors used Web 2.0 technology to plan and implement the online course. Student perspectives include their previous international educational experience, if any, use of technology for personal and educational purposes, and reactions to their virtual collaboration with international students. The paper discusses issues of coordination, illustrates students' international experience and technology use, and makes recommendations for developing similar collaborations.

Keywords: Virtual Learning Environments VLEs, virtual worlds, Second Life, communities of practice, collaborative learning, globalization, student exchange, student technology use.

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1. Introduction

As employers become more globalised the expectations of students coming into higher education include a culturally diverse and internationally focused experience. In addition, the growing numbers and diversity of students requires that education transcend local restrictions. This has resulted in a particular challenge to Higher Education Institutions (HEIs) in considering how to meet the needs of students and their future workplaces. One way for European students to access international experience has been the *Erasmus Programme* that funds student-exchange arrangements between European HEIs. Recently, the US Department of Education's International Strategy from 2012 [1] stated that, 'an effective domestic education agenda must . . . aim to develop a globally competent citizenry'. This focus is to help develop

'intercultural competence,' or 'the ability to communicate effectively and appropriately in intercultural situations' according to Barker, particularly by allowing students to 'experience new cultures' and 'work side by side' with citizens from other countries [2]. While The *Erasmus Programme* has shown increased participation every year since its inception in 1987 [3], HEIs still face challenges in encouraging students to take advantage of the opportunity. In the United States K-12 and HEIs have an emphasis on global literacy but a significant issue has been the cost of sending students overseas to get an international experience [4].

Collaboration between institutions, particularly international collaborations such as inter-university teaching, allow both students and staff the opportunity to engage with alternative viewpoints in both practice and learning, as well as providing an opportunity for exposure to a globally diverse experience. Online Virtual Learning

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Environments (VLEs) such as learning management systems, web-conferencing platforms, and virtual worlds provide viable and cost effective ways to facilitate global collaborative learning experiences.

In 2008 a five-credit module (under the European Credit Transfer and Accumulation System[†]) of one semester duration and titled *Virtual Environments: Is one life enough?* – developed by John O’Connor and Claudia Igrude for delivery entirely in the online virtual environment Second Life[‡] – was undertaken as a pilot by academic staff interested in eLearning at the Dublin Institute of Technology (DIT). The following year it was offered to full time art and design undergraduate students on an elective basis. Delivery has continued each semester and more than ten student groups have successfully completed to date. The module has received two major awards for innovation in learning and teaching.[§] Since 2010 additional places have been offered to members of the wider Second Life community on a Continuing Professional Development (CPD) basis in partnership with Dublin Virtually Live.^{**} These participants joined the undergraduates to create a richer learning experience for all.^{††} Some were academics interested in exploring virtual education and this led to Dudley Turner proposing a collaborative offering between DIT and the University of Akron (UA) to deliver the course to a group made up of undergraduate students from both institutions in 2014. Each institution maintained responsibility for its own students, keeping control of the administration and examination processes, while the teaching, assessment and feedback were shared. This flexible approach supported the opportunity to test the viability of virtual collaboration while keeping to a minimum the inter-institutional bureaucracy that might normally slow down such collaborative ventures – the only requirement being

[†] http://ec.europa.eu/education/tools/ects_en.htm

[accessed 29 March 2015].

[‡] <http://secondlife.com> [accessed 29 March 2015].

[§] In 2010 the module received the annual Jennifer Burke Award for Innovation in Learning and Teaching presented in Dublin by the Irish Learning Technology Association <http://ilta.ie/2010/05/second-jennifer-burke-award-for-innovation-in-teaching-and-learning-announced/> [accessed on 29 March 2015]. In 2012 it won the Learning Without Frontiers Award for Further and Higher Education presented at the LWF12 Conference and Festival in London <http://virtualevironmentsmodule.com/2012/01/26/winner/> [accessed on 29 March 2015].

^{**} Teaching is delivered in various locations around a virtual model of Dublin in Second Life that already hosts a well-established community of residents with broad creative and cultural interests.

<http://dublin.readyhosting.com/index.php> [accessed 29 March 2015].

^{††} Participants from locations across Europe and the US began taking the course.

a formal validation of the module by UA. At UA, as at many U.S. universities, there are flexible-topic seminar and colloquium courses offered, and the module fit into that schedule rotation, so no lengthy curriculum approval process was required.

2. Communities, relationships and networking

Virtual Environments: Is one life enough? addresses the need for undergraduate students to be digitally literate and understand the potential for creating and managing their online identities. It introduces participants to collaborative online working in a practical way by scheduling classes in the widely available virtual world Second Life. Simple to use, Second Life provides a realistic environment for learning and is easily accessible globally. Lecturers and participants meet for a ninety-minute weekly class throughout the semester where they interact via a voice enabled avatar in a classroom-like setting. The syllabus includes lectures, class discussion based on reading material given in advance, student presentations, and guest speakers who share experiences and lead virtual field trips to other locations in Second Life. Participants are required to write a blog in which they reflect on their learning throughout the semester. From the beginning of the semester they are divided into small groups to work on a collaborative project. The lecturers maintain a module blog^{‡‡} where a summary of each class and activities to be completed for the next class are posted. The blog also contains support material such as reading lists, tutorials, technical support and so on. Student feedback is given in Second Life outside scheduled class time and through email. All engagement between lecturers and participants takes place online thereby supporting globally dispersed participants.

The module has six learning objectives describing what the participants will be able to do on completion of the course:

- Access online virtual environments and networking communities to carry out specific activities;
- Create and manage their presence online;
- Establish and maintain virtual relationships;
- Explain how the regulations and conventions operating in online virtual environments and networking communities support the creation and management of content;
- Describe the potential outcomes from creating content;
- Apply this knowledge to create and exploit original content for online virtual environments and networking communities.

^{‡‡} <http://virtualevironmentsmodule.com> [accessed 29 March 2015].

2.1. Participant background

Undergraduate students taking the module come from a variety of disciplines such as computer science, engineering, art and design, accountancy, dance, nursing and across a range of levels in their study, from first year to final year. They are all active users of web 2.0 media – particularly Facebook and YouTube. Those taking the class on a CPD basis are more experienced professionals with a specific interest in developing their skills in online collaborative project work. Many are teachers and lecturers, artists and designers. All have been active in Second Life before joining the class and some have gone on to develop classes in the virtual world with their own institutions^{§§}. The partnership developed by the authors between DIT and UA is the first to have emerged from the module.

3. Module design and delivery

3.1. Building a learning community

Much current thinking around learning communities has been influenced by observing the ‘virtual communities’ that develop in MMOGs (massively multiplayer online games) such as EverQuest and World of Warcraft. Writing specifically on this topic Galarneau highlights 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]

An environment such as Second Life also provides the opportunity for learners to engage in peripheral activities and join communities that support a deeper engagement and results in greater understanding and retention. Lave and Wenger suggest that ‘the way to maximize learning is to perform, not to talk about it’ in a community context [6]. 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 [7].

Very little amendment was required to prepare *Virtual Environments: Is one life enough?* for joint delivery

^{§§} One of the participants developed a module for Dublin City University titled Religion in Cyber Space <http://courses.materdei.ie/index.cfm/page/module/moduleId/16719> [accessed 29 March 2015].

between DIT and UA. The objectives for both groups differed slightly but the content and contexts remained the same. To coordinate the planning, lecturers used a wiki. Information about weekly objectives, activities and guest lecturers was all put into the wiki, reviewed and edited by all lecturers, then if issues arose that needed discussion or decision, they would meet in Second Life to resolve them. These meetings were typically after the class meetings. Use of the wiki facilitated asynchronous communication allowing for efficient time management in planning and conducting the module, particularly as lecturers operated in different time zones.

For DIT participants, the continuation of the module offered the same benefit as the original offering, that is, the opportunity to work collaboratively in an online context and begin the process of developing an online identity. For UA participants, the benefits of offering the class included learning about virtual worlds and what they had to offer. For both groups of participants the opportunity for interaction, collaboration and networking between participants and lecturers from different disciplines, institutions and cultures is a significant attraction.

3.2. Alternative to student exchange

In the twenty-first century workplace the ability to work with globally distributed teams is a valuable skill for employees. Junior Year Abroad programmes, the Erasmus programme, study abroad, summer courses or work experience are usually the vehicles through which students experience other cultures and environments. However, due to time and cost constraints, it is not possible for all students to avail of these opportunities in face-to-face settings. Collaboration in the online virtual space, as experienced in this class, was designed to give students – and indeed, lecturers – the benefits of such an experience without the cost. Morgado, et al. [8] identify virtual worlds as spaces providing potential for learning contexts where students and teachers ‘interact cooperatively, immersed in context-rich situations’.

An online learning environment that brings together people of all ages and cultures around common goals and interests and is ‘openly networked’, using online platforms and digital tools to make learning resources available to everybody can play an important part in widening opportunity writes Schaffhauser [9].

The use of the *Flipped Classroom* – where students are given pre-class work to watch and read to facilitate later discussion in class [10] – with guest speakers who would normally not have been available to participants provides for a diverse and engaging learning environment. The advantage of the virtual world over the video conferencing in this particular module is that it allows the participants to assume a character through which they can explore the learning objectives of the module. The use of the virtual world platform Second Life as a learning environment allowed for approaches that helped integrate

the participants' experiences in real and virtual contexts and supported global, social learning. Second Life, as other 3D virtual worlds, has the possibility for 'immersive learning experience and a safe environment to facilitate remote interactions' and 'offer a more personal experience than more conventional communication technologies' and may 'evoke a much stronger sense of presence ... particularly when participants are involved in collaborative activities or group work' [11]. This is evidenced in the use of tools to support the learning and collaboration, including blogs, wikis, instant messages and so on.

3.3. Delivery and assessment

Classes are structured to follow relevant themes or topics each week. Videos, blog posts, articles and academic papers are assigned for study in advance of class meetings. These form the stimulus for discussion in class around the topic of the week. Participants are encouraged to link what they read and discussed to their own contexts for study and personal interest. By the third week they are assigned to groups (combined of DIT and UA students) comprising about five participants to work on a collaborative project.

The assessment of learning for the module is based on the reflective blog kept by each participant in addition to the collaborative group work. The blog consists a series of reflective written texts posted each week and initially based on prompts given by the lecturers. The group work assessment is not based entirely on the artefact produced but on the process of collaboration that leads to it. Participants evidence this through their reflective writing in the blog, class discussion and presentation of the project. The project is merely a vehicle to engage participants in the dynamic of working collaboratively with a group in an online context and to stimulate their individual contributions while also reflecting critically on the process.

Students are also assessed on how they applied what they learn each week in their group task. The emphasis is not so much on the end product but more on the process; and how they captured evidence of the process using online tools.

After class each week the lecturers review the progress of the participants against the lesson plan and make adjustments to the outline for the following week based on what worked, what didn't work and participant feedback. This type of responsive implementation allowed for deeper involvement and engagement with the participants. Given that the students are online participants, this is a valuable way to keep track of where there may be challenges. This interaction is recorded in the online wiki maintained by the lecturers since the commencement of the module and it provides a valuable record of the development.

4. Feedback from students

4.1. Methods of feedback

Feedback from participants was received in a variety of ways. Weekly evaluation through informal conversations proved a valuable way to get feedback on an ongoing basis. The time for this is built into the schedule and the lecturers remained after class to meet participants individually and ask specific questions such as: 'how is your work going?'; 'why is your blog not up to date?'; 'is there any way we can help you meet your targets for the week?' or a simple 'is everything going well?'. This approach meant that it was possible to catch any conflicts that arose before they had gone too far, but participants could also be given reassurance that they were on the right track, especially important as there was no real life face-to-face contact.

Additionally, the participants' own reflective blogs were designed to provide a window into what they were doing, their rationale for their decisions, their reactions to readings and guest speakers, and their perception of their own progress. Prompts were given to encourage reflection and writing, clear guidelines were given as to what was required in the written work, and feedback was given regularly to the students on their writing.

Finally, selected cohorts of students are surveyed formally and anonymously. This year (February to May 2015), a more detailed survey than before was distributed to the 34 students registered to the class with 24 responding (71% responses rate) measuring aspects including the reasons for taking the module, use of online tools, and students' international experiences.

4.2. General student comments

General feedback from different cohorts of students indicates that being able to interact with others on a global scale, flexibility of the lecturers, and team-working were the key aspects participants appreciated in the module. Their reactions included:

'The dissolving of boundaries. Our "class" was composed of students not just from all over Ohio but from across the ocean as well.' – Participant A

'I appreciate the very different approach that deviates from normal classrooms. I liked that it was more about discussion and current events.' – Participant C

While a few participants were either not sure of what skills they might use in the future or felt that it was an elementary class for them, most were able to identify direct relevance of the module to their future careers. Some participants appreciated that it was:

'extremely hard to coordinate and communicate in groups without face to face or voice interaction', - Participant E

and that

'everyone has their own schedule and you must make the best you can to adhere to each other's timeframes.' – Participant D

Most importantly, they came to an understanding of the importance of taking ownership of their digital identities or online presence and being digitally literate while being online. Some participants said that the lectures on virtual identities and the impacts on things posted online will remain with them forever. Others said that the information about personal branding and creating online presence will be very useful in their future careers. Many also highlighted that they learned about how to convey their ideas online and that online etiquette and appearance are as important as in face-to-face interactions. Considering that many of these are third level students, the fact that these were the learning points that stood out for them indicates the need for such education.

In the first cooperative module, only one US participant had any international experience. Nearly half of the participants (45%) felt that they would be more confident about working on an international project after their experience on this module. Some felt they were already prepared or had confidence enough (e.g., ‘They [students from the other institution] really weren’t that different’). However, many felt that they had learned lessons both in terms of what worked and didn’t work, and what to watch out for. For example,

‘I would feel more confident because this module allowed me to see some of the big problems with international projects – timing, dialect, backgrounds – so that I will be better able to handle these in the future.’ – Participant B

4.3. Student motivation

The specific survey conducted this year indicates that a majority of the students took the class because it is delivered online (71%). This was the principal reason given for taking the module. For students at both institutions, having an online class allows them flexibility to choose from where they connect to the class. For the Irish participants scheduling the class meetings in the evening reduces pressures arising from timetable conflict with other classes; however, for the Akron participants this time of day was late afternoon, which did not free them from possible conflicts with other courses, work or co-curricular activities.

From both institutions, some students indicated a reason they took the class was because they were curious about the virtual environment (42%) or because they wanted to experience working virtually (25%). Some of the students were also interested in the class because it included international students from another country (21%), yet only 13% said they took the class because they could not travel internationally.

As with previous classes, there was a mixed profile of students in the class with some from the arts, education, nursing and the sciences. The motivation provided from each of these disciplines for interest in the online medium varies and this is reflected in the students’ interests. Only one student (4%) said they took the class because it was mandatory for them rather than linked to their own interests.

4.4. Previous online experience

Prior to this module, half of the students who responded had not participated in an online class of any kind. About a third (38%) had participated in blended classes via pre-recorded videos and discussion boards and two students said they had participated in a class with video conferencing. One had participated in a class without any video interaction.

4.5. International experience

Most respondents (88%) had no previous international experience in the course of their education so far, while 13% had had previous international educational experiences such as attending an international school, a brief class trip abroad, or lived in another country as a child. A quarter (25%) would like to be involved in other international education experiences, while most (71%) were not sure and stated ‘maybe’. The 4% who would not like to have any further international experience were taking the class because it was mandatory.

Many of the students found online collaboration difficult both for practical reasons (e.g., different time zones) and due to cultural differences (‘I noticed that we have different thought processes’). In contrast, a significant number were surprised at how easy they found it to communicate. While some of the specific online communication tools differ it may be that the ability to communicate varies between individuals. A significant majority reported an increased awareness of the potential of online communities as a result of taking the class.

4.6. Use of technology

The use of social media tools is ‘a natural way for students to communicate given their prevalence today’ according to Friedman.[12] Reidel reports that students are ‘looking at social media not as a separate thing that you do occasionally but as a pervasive part of the way they are living their lives’ and they ‘want to connect with their lives inside the classroom.’[13] Students use a variety of technologies for personal use in general, but the usage of these same technologies is different when the purpose is to support their learning. For personal use, over two thirds of these students are active on Facebook (75%), instant messaging tools such as WhatsApp, telegram, vibe, snapchat, etcetera (71%), and Twitter (67%). There is lesser use of other technology like Skype or Face Time (54%), Instagram (46%) or Google Plus hangouts (42%). No students indicated any use of online discussion forums for general use. In contrast, for learning, only about a third of the students indicated using Facebook (38%), Twitter (38%) and online discussion forums (33%). There were few or no students using the other technologies for learning. Beyond these, a majority

of the students (67%) use their school-provided platform for online or blended courses. (See Table 1)

Table 1: Technology used by students for personal communication and to support learning

	Tech used generally	Tech used for learning
FACEBOOK	75%	38%
INSTANT MESSAGING	71%	0%
TWITTER	67%	38%
SKYPE/FACE TIME	54%	8%
INSTAGRAM	46%	4%
GOOGLE+	42%	4%
ONLINE DISCUSSION FORUMS	0%	33%
SCHOOL PLATFORMS	-	67%
DIT LIBRARY	-	4%

4.7. Learning experiences

The learning objectives of the module have been designed to facilitate an informed use of social media. More importantly, the opportunity to collaborate online in itself is the key learning experience. This experience becomes increasingly resonant as McLuhan's global village takes shape [14]. The participants have not been slow in picking up on this nuance. While a few are focused on learning about the virtual world, most of the students identified the challenge of working across time zones as a significant learning experience.

'Time zone differences don't have to be in the way of meaningful interactions between students from different areas.' – Participant 2.

'So far all I can really say is that its hard to communicate with international students due to the time zone and scheduling issues.' – Participant 6.

'I did not know how easy it was to communicate with others internationally. Thanks to the virtual worlds and with SL especially I can communicate with people.' – Participant 20

'Picking a time of day that suits both time zones is an import aspect of group work and communication.' – Participant 10.

For others, the key learning is in the similarities and differences between them and 'others'. Learning about these similarities and differences, and respecting them, is an important aspect of functioning in a global workspace that is becoming increasingly diverse.

'There are many similarities and differences between both education systems.' – Participant 8.

'I have definitely learned that there are many differences in people from different countries. I really experienced this through talking about our group project, because we had a hard time getting our point across to people from the opposite school. It is easily noticed

that we have different thought processes, and come from different teaching styles.' – Participant 19.

'At this time my interaction with the international students has been somewhat limited.' – Participant 16.

'That students are all alike no matter where they are in the world.' – Participant 15.

Other students highlighted that they would never have explored alternative ways of communicating or engaging before the class, they learned how to use diverse social media platforms that they never would have tried unless they were 'forced' outside their comfort zone.

'Before this class I never touched any PC or virtual gaming devices. So I have learned to an extent what I assumed but also have had my awareness opened to new experiences.' – Participant 23.

4.8. Technical framework

It is notable that, as has been described, the cohort taking this class is made up from students with different backgrounds and experiences studying a variety of disciplines. A high level of technical ability is not required so that potential students are not deterred. This has resulted in a technical framework that allows for the participation of a range of abilities. The framework adopted has involved a scaffolded approach with links to community-based support while encouraging peer support as well as independence and self-accountability.

Prior to the start of the pilot, it was discovered that the ports used by Second Life were blocked by default on the Institutional network. This was addressed in conjunction with the Information Services (IS) department. Second Life was also installed in designated computer labs, but students were generally encouraged to work on their own computers where possible. This ensured that they were responsible for their own computers and their own technical support, and could attend the class from anywhere. However, it was necessary to ensure that they could use the institutional infrastructure to get online while on campus and in this respect, we continue to work with the IS departments. As far as use of the Virtual Space (Second Life) is concerned, students are encouraged to support each other rather than seeking to use class time for technical issues. This approach ensures that the class discussions are beyond the scope of technical support issues. As the DIT is based in a virtual community - Virtual Dublin - members of this community have also been part of the support structure for students.

5. Conclusion

Feedback from the participants confirms the need for this module both for international experience and for virtual understanding. If the purpose of higher education is to prepare students for a life beyond the confines of the institution, then, being able to manage their online identities and being digitally literate is an essential aspect of their education.

Additionally, collaboration between the two universities has involved negotiation and cooperation, but also buy-in from senior management. By offering the module using each institution's pre-existing course structure, the need for any extensive paperwork and approval process was avoided. Collaboration between the lecturers helps ensure that the needs of participants for their degree requirements can be met while providing this valuable international experience. Use of Web 2.0 tools by lecturers not only helps reach these goals in planning and implementing the course, but also can be used as an illustration of international collaboration in itself. Our findings support earlier research showing students are open to similar technologies to support their class work. [15] All tools are widely available at little or no cost and supported by a range of platforms. They are easy to use requiring little technical ability beyond basic digital competence.

It is necessary to get initial buy-in or support from local IS services, however, and to get students to take the responsibility for their own technical support. Using this as a 'teachable moment' is a useful way to highlight the benefits of accessing online communities.

Building on this experience, it is expected that the module will be offered beyond UA and DIT in future semesters.

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