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Teaching and learning in Second Life—experience from the Kamimo project

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1. Background
The rapid development of information technology (IT) and the World Wide Web (WWW) created new opportunities for distance collaboration, especially the development of Web 2.0 applications such as wikis, blogs and social networking sites. The use of IT and WWW has certainly affected higher education in general and distance education in particular. Distance education often uses web-based material and applications and concepts like online education and e-learning are now used more frequently (Hrastinski, 2007; Garrison & Anderson, 2003). In addition, the number of students enrolled on distance learning courses is increasing significantly (Hrastinski, 2007). At the same time universities are making great efforts to further develop their e-learning systems in order to provide students with adequate learning environments.

In spite of these actions, it has been shown that online courses often have a low retention rate (Carr, 2000; Simpson, 2004). One of the reasons for this may be the lack of a social dimension in these e-learning systems—since students do not actually meet fellow students face-to-face and are therefore not able to communicate spontaneously and in real time (Lombardi & McHill, 2004). It has been discussed that the use of Web 2.0 applications may offer new opportunities to improve online/distance education (Anderson, 2007). In order to facilitate the social dimension, the most promising applications are the virtual world environments (Dickey, 2003).

The learning process in virtual environments involves the utilisation of interactive course material and various tools embedded in the 3D-environment, as well as interaction and collaboration with other actors engaged in the education. Virtual environments bring about new exciting possibilities but also new challenges when developing e-learning systems. The Kamimo project offers an opportunity to study these challenges.

2. The Kamimo project
The Kamimo project (originally titled Virtual societies as a platform for lifelong learning) is a two year cooperation (2007-2008) between the University of Kalmar (Sweden), Molde University College (Norway) and the University of Central Missouri (USA), sponsored by the Norwegian Open University (Norgesuniversitetet). The project aims to investigate the potential uses of virtual worlds in higher education by carrying out a number of courses, projects and collaborative work in one specific virtual world, Second Life.

The project has established two virtual islands in Second Life, Kamimo Island and Virtual Montmartre, in cooperation with external consultants (Design Container AS, Norway and Pleiades Consulting Incorporated, USA) who have worked on the building and establishment of the islands.

The main objectives of the project are to:
• create a stimulating virtual learning environment in SL;
• test and evaluate different teaching and learning activities in SL (courses, projects, meetings, role play);
• test and evaluate how effectively SL can be used in fostering cooperation (between faculties, universities, business); and
• test selected learning tools or elements together with the virtual environment.

The project supports learning activities for different segments of the partner organisations’ student populations as well as allowing for cross-communication between the student bodies. So far the project has resulted in: two courses in English presentation skills run completely in Second Life; several student projects designing and building virtual environments in SL as part of an ongoing degree program; courses for information technology majors; and further integration and testing of the virtual world elements for learning and for support of learning and communication between groups within the business sector. These activities are being evaluated and will be presented in research papers based on the findings at a later date.

The roles of the three partners have been as follows:
• Molde University College have been responsible for the project management and research coordination. They have shared responsibility for the virtual campus, Kamimo Island, with the University of Kalmar. In autumn 2008 Molde University College ran a course in 3D design based on Kamimo Island. This course also featured collaboration with a Norwegian company, Wise Consulting AS.
• The University of Central Missouri have built a simulation of Montmartre, Paris, as it was in the 1920s in order to provide students with an engaging and immersive learning environment for studies in Afro-American culture and in particular the growth of jazz in post-WW1 Paris. The use of virtual worlds to facilitate immersive role play and enable students to recreate convincingly the era they are studying is being investigated as part of the project. UCM’s previous experience in teaching in a virtual environment has been crucial for the success of all other activities.
• The University of Kalmar have been responsible for teaching several courses in English via Second Life (as described in this paper) as well as a number of student projects based on SL.

The evaluation of the project activities has focused on examining how far teaching methods used in Second Life exhibit affective support for the involvement of learners. The
project activities examine how the use of virtual worlds can add a social dimension to distance learning not present in existing learning management systems.

The Kamimo project group consists of:
- Björn Jäger, Molde University College (Norway)
- Judith Molka-Danielsen, Molde University College (Norway)
- Dr Bryan Carter, University of Central Missouri (USA)
- David Richardson, University of Kalmar (Sweden)
- Alastair Creelman, University of Kalmar (Sweden)

Activities in the project have been entered on the project blog at http://kamimo-islands.blogspot.com/

2.1 Cooperation with other universities

During the project period several other universities have shown interest in the Kamimo project and carried out a number of test activities there, for example Lund University, Mid-Sweden University, University of Skövde, University of Oslo, University of Bergen and the University of Öököping.

The reasons for their interest in SL are similar to those of the project members. Primarily they saw great potential for virtual worlds to enhance the experience of distance learning and they wish to investigate the pedagogical advantages of the medium for future development.

At Skövde a group of third year IT students were first instructed to create avatars and go through the orientation process before gathering for a guided study visit to a number of locations in SL including Kamimo Island and the Second House of Sweden. They then were asked to write essays on various aspects of SL such as anonymity, virtuality and gender.

Lund University have set up a project called Teaching in Second Life (http://www.ced.lu.se/o.o.i.s/12227) where they cooperate with Kamimo as well as with New Media Center. The aim of the project is to investigate SL from a pedagogical perspective looking at the prerequisites, opportunities and limitations of teaching in such an environment. What types of teaching work in a virtual world and why? Can worlds like SL be integrated into existing LMS tools? This led, in spring 2008, to a project involving students in Lund and at a partner university in China collaborating on Kamimo Island to build an exhibition area showing aspects of Swedish and Chinese culture. This project aims at supporting teaching, learning and recruitment/information in a multidisciplinary collaboration between the Centre for Languages and Literature; the Faculty of Engineering; the Nordic Centre; and the Centre for Educational Development (CED) at Lund University. The project will provide a web portal for students at the China-focused Engineer programme and for students of the partner universities/centres in China. Additional purposes are recruitment and exchange. The project also aims to build a virtual meeting place in SL, in which students from China and Lund will meet, interact and collaborate in different learning activities. These activities will strengthen the linguistic, cultural and social competence of the students and give the teachers a unique opportunity to study immersive teaching and learning in virtual worlds.

2.2 Oral Production course

In this paper the focus is on courses taught at the University of Kalmar and the lessons drawn from practical teaching experience. In particular the course Oral Production (3 ECTS credits) is examined as it was the project’s first publicly advertised university course conducted entirely in Second Life. The course was first offered in spring 2008, repeated in autumn 2008, and will be run again in spring 2009 under a new name, Business Talking.

The learning outcomes of the course are that the student will be able to:
- give oral presentations in English in different technical administrative and formal situations;
- participate in informal discussions in English;
- work in digital learning environments.

The spring 2008 course was the object of a research project, the results of which will be included in a forthcoming thesis. In this paper we provide a brief summary of the research as well as the teacher’s reflections on the course.

2.3 Research

The research conducted during the course on Oral Production aims to study how the virtual world of Second Life (SL) may function as a collaborative e-learning environment for higher education.

The research process was challenging, since the practice of studying distance education in a virtual world environment is quite a special situation. Firstly, the study must be conducted within the virtual world and in the real world at the same time. Secondly, the research process is very much dependent on the teacher’s ability to participate in the data collection—otherwise it is difficult to gather data about the communication between the teacher and students that is conducted before and after the sessions. Finally, the data collection within Second Life greatly depends on the technical conditions such as computer and network capacity.

The data was collected through a variety of methods including:
- interviews with the teacher as well as with students;
- virtual recordings of the Second Life sessions through the teacher’s computer;
- video recording of the teacher and his workplace in real life during the sessions;
- observations during the sessions within Second Life and at the same time taking notes in real life;
- the teacher’s journal—a blog where the teacher records everything that happens during the course including all contacts with the students.

The difficulties of data gathering within Second Life emerged early on in the research process. During the first Second Life session it became clear that the virtual recordings had to be restricted to approximately 10 minutes to create smaller file sizes. Larger file sizes caused computer crashes due to the capacity required by the Second Life application. In addition, the observer experienced at least four computer crashes during every Second Life session even though the computer fulfilled the recommended system requirements.

The findings of the study are currently being analysed. Preliminary results will be provided during the presentation.

3. Teaching in Second Life; the teacher’s perspective

(David Richardson)

When the educational environment on Kamimo Island was being formed, I considered how such an environment could be used to teach my subject of English. Rather than using the environment of Second Life (SL) just because it was there, I attempted to make pedagogical judgements about what kind of learning the environment was best suited for.
Having examined several different types of learning environments in SL, I also made a mental distinction between courses which use SL as "place of study" and ones which use it as an "object of study" (Richardson and Molka-Danielsen, 2008). The latter are the most prevalent: students and teachers visit an SL environment containing rich sources of information, which they interact with or observe and then bring their conclusions and experiences back to their conventional learning environment in order to work on further. The former, on the other hand, use SL as the location the course happens to take place, gathering students virtually from many different locations in real life (IRL). These categories are not, of course, mutually exclusive, but the distinction provided me with a framework within which to think about how I was going to approach the design of a language course within SL.

"Place of study" courses, for example, do not put such heavy demands on the SL environment as "object of study" courses, since the basic requirements are just to have a place with, say, an available whiteboard or screen and some relatively undisturbed space for interactive activities to take place. Naturally it is possible to do much more with the "physical" environment within SL, but the minimum requirements are not very extensive. "Object of study" courses, on the other hand, require a great deal more preparation of the learning environment in order to be able use it for study, even though there is a great deal the students themselves can contribute. In the Kamimo Islands project we created both types of environment: the main Kamimo Island is a generic "place of study" whilst the neighbouring Virtual Montmartre is a reconstruction of a Parisian environment from the early 1920s which is intended to be used for specific purposes on courses relating to African-American Culture.

For many courses, the conclusion I came to was that a "place of study" course would be interesting to develop. I am a distance teacher and my students come from more or less anywhere apart from the town in which I live! One of the environments I have felt the need for is one where skills courses in speaking and listening can be run by distance. I use a number of ICT tools already, such as podcasting and desktop video conferencing. However, these are less than entirely satisfactory for running courses which include affective elements—the communicative interaction via, say, desktop video conferencing is still stilted and artificial for students who do not have English as their first language. More proficient students cope with this with a certain amount of ease, but it is much more difficult for less proficient students. In general, students need to be distracted in order to dare to use the language they have in speech—and SL can be a very distracting environment! This, in turn, gave the course team a great incentive to make the course activities relevant.

As soon as this course was underway, it was clear that the environment on Kamimo Island was sufficiently and appropriate for this type of teaching. Up to that point I had experienced SL on an individual basis, with one-to-one conversations with other single avatars. I needed to see what happened when a class gathered, and to test the several different types of environment on Kamimo Island. I made a decision in mid-September 2007 that it would be possible to run more conventional courses (i.e. courses which did result in credits and which were subject to the same constraints and possibilities as all other university courses) in this environment too. By this time, however, the time needed to prepare a course to be included in the spring 2008 schedule was very scarce, but I managed to prepare a syllabus, have it approved, and thus register the course. The course included a course in the online system used for applications to all courses at Swedish universities. The course, which then was called Oral Production (since renamed Business Talking), was ready to be applied for by the deadline for spring term courses of 15th October 2007.

I felt it important that a course on Kamimo Island would be subject to the same conditions as any other more conventional course offered by Högskolan i Kalmar. This entailed it being a course on which students could gain European credits; one which students could apply for in the usual way (via studera.nu, an online application service used for all Swedish university courses); and one which was subject to the same budgetary and administrative procedures as any other course. My aim was to bring SL into the mainstream of net-based learning here in Kalmar. The course needs to be able to survive without subsidy, and to fill a genuine need for the students, if SL is to be a viable environment within which to offer courses.

The Business Talking course itself is actually a fairly conventional oral skills course—it is only the environment within which it takes place which is new. Alexandra Petrakou studied the first group of students as part of her
research work as mentioned earlier in this paper, but one major conclusion I, as a practising teacher, was able to draw was that the SL environment is a particularly good place to run skills courses and courses with affective elements. If it is your avatar which makes the mistake then you do not feel so self-conscious and embarrassed which, in turn, empowers you to keep on trying.

The way of delivering the course, however, required the development of a number of new procedures and practices. I have been cooperating with Dr. Bryan Carter of the University of Central Missouri for a number of years on courses which involve his students and mine interacting in various ways. Dr. Carter runs Composition classes each term, where SL is used as an object of study. Thus, his students and mine were able to be paired up, with his students interviewing my students for the purposes of his course, whilst my students gained native English-speaking mentors who could guide them through the initial stages of becoming acquainted with the SL environment, whilst at the same time providing them with the raw material about which to make presentations on the Business Talking course. The course, thus, starts with a launch on Kamimo Island at which US and European students’ avatars mingle, become acquainted and arrange to visit other sites together. At the same time, this informal environment enables me, the teacher, to check the identity of the students, ensure that the basic functions in SL are working for them, and make sure that the students know what they need to do at the first course meeting—and where they need to do it.

After the course launch, there are five, two-hour planned sessions, where students have specific tasks to perform and exercises to participate in. All the assessment on the course takes place in SL, whilst feedback and extra information is delivered via the course web site, a series of podcasts and a course blog. The course web site is on an open web server, and the home page can be visited at: http://www.humsam.hik.se/distans/existstud/op/index.htm

4. Discussion—virtual worlds as e-learning environments

The standard tools used in net-based higher education (LMS, e-meetings, video conferencing, etc.) offer both synchronous and asynchronous text, voice and video communication. Whilst these tools offer a great deal of scope for communication they can seldom be described as immersive. Students log into the university’s LMS to post a comment on the course’s discussion forum or to submit an assignment and then log off. There is seldom any compelling reason to stay logged on for any significant length of time and the chat rooms offered for real time communication are generally empty unless a session is arranged by the teacher. Voice is now available in LMS environments and even more so in an e-meeting/video conference where everyone can see each other. Student comments in a forum are made knowing that the teacher will read them and that comments will be used as a basis for assessment. Full-scale uninhibited discussion seldom takes place as a result. Social websites and blogs on the other hand feature intensive and lively discussions without assessment (except when the site moderator is moved to censor extreme or offensive statements).

A further limitation with existing tools is integrating campus and distance students in a stimulating and effective way. E-meeting tools are effective for face-to-face meetings involving presentation and discussion but they tend to follow the logic of traditional lectures or meetings. As is described in the earlier discussion of teaching experience in the project there are clearly situations when it is desirable to have video meetings and there are other situations when the richer and more imaginative environment of Second Life is more effective. Role-plays is a clear case in hand. Role-plays in the classroom or in a video meeting tend to be at best forced and rather artificial since all participants are aware that they are acting. In the virtual world roles can be more convincingly adopted since appearance and identity can be changed and our experience indicates that this can lead to students feeling less inhibited and thus raising the quality of the learning experience.

Second Life also offers the opportunity for campus and distance students to meet in a common environment and “sit around the same table” in a way not possible using standard e-meeting tools today. In addition students can collaborate on building projects in Second Life despite geographic dispersion. This was tried in the autumn term 2007 during a course at the University of Kalmar, Visualisation II that is part of a three year degree program Interaction Design. Students studying 3D design collaborated in Second Life to design and build an exhibition centre. Such collaboration has not been possible previously and the potential for development is clear although the students were critical of the limitations in Second Life’s 3D tools compared with standard 3D tools.

Virtual worlds like Second Life offer an immersive and relatively unregulated environment with enormous social networking potential. As in social web sites like Facebook you are free to link up with people from all over the world and communicate, share, create and contribute as and when you want. Kamimo Island and Virtual Montmartre offer academic environments in this world where student work and projects can take place but do not exclude linking up with contacts from outside the student’s own university. The link between the LMS and virtual worlds as offered by Sloodle could help to bridge the gap between these environments and offer a safe and less threatening introduction to Second life for new users.
References

http://www.jisc.org.uk/media/documents/techwatch/tsw0701b.pdf


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