

SECOND LIFE — REAL LIFE APPLICATIONS FOR TEACHING AND LEARNING

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Abstract

This paper will highlight the potential and possibilities of virtual worlds to support and extend real life learning. It outlines the action research, thinking, and process of developing a Second Life presence for use in any secondary classroom. The Sydney Centre for Innovation in Learning has been developing a Second Life presence for use by staff and students. There are now two installations of Second Life used by the school. One is in Teen Grid Second Life on an island named Booralie and the other is within the general Second Life on the island of Jokaydia.

Introduction

The Sydney Centre for Innovation in Learning (SCIL), the research, development and innovation unit of Northern Beaches Christian School, Sydney, Australia has been developing a Second Life (SL) presence for use by staff and students, in order to consider the pedagogic possibilities opened up by such virtual worlds. There are now two installations of Second Life used by the school. One is a teacher professional development establishment in the general Second Life realm on the island of Joykadia II and the other is within a Teen Grid Second Life — a secure, locked-down island for class use, named *Booralie*. Both were established in early 2009. *Booralie* island has been the space of most initial activity. As a Teen Grid Second Life space, *Booralie* island is only available to secondary students from Year 7 upwards.

SCIL operates from a philosophy that is constantly seeking to transfer innovation to mainstream experience within the school, supported by research that continually encourages experimentation that moves from concept to practice as quickly as possible. SCIL is structured in order to inspire all teachers with the pedagogic possibilities of new learning technologies and to support teachers who choose to explore new ideas.

What is Second Life?

Second Life is an online, graphically rendered, 3D virtual world. Participants must select an ‘avatar’ that becomes their online personification. These avatars become the residents of different spaces. They have the flexibility to move, talk, text chat, fly, teleport, and interact within the world. Carr and Oliver pinpoint the usefulness of Second Life when they highlight that “Second Life is a toolset, a virtual world, and it supports social networks” (2009, para.2). This definition is very helpful — because it goes to the heart of its potential as a pedagogic tool for teachers. The strength of Second Life is that it opens up a whole new set of tools that teachers can bring into their classroom — at two levels — external and internal. At the external level — like other virtual learning environments (VLE), Learning Management Systems (LMS) or Content Management Systems (CMS), Second Life becomes another tool for a teacher to use within a course. At the internal level, Second Life, is open ended and facilitates spontaneous and recurrent creativity. The unstructured nature of the virtual world can create a level of ambiguity that can be a challenge for some. Carr, Oliver, and Burn point out that this ambiguity comes about because a virtual world

is constructed and enacted in different ways according to the setting in which it is encountered, and the interests of the user. This cannot be avoided. It can, however, be worked with pedagogically. For instance, this variability or ambiguity renders roles, teaching designs and practices unfamiliar or visible, and thus it may be used to draw attention to issues of pedagogic importance. (2008/2010, p. 10)

Research

In an essay that looked at the question as to whether ICT enhances or jeopardizes learning, Aviram made the observation that any “adaptation must be radical ... introducing ICT culture into school and mobilizing it to desired goals.” He suggests that there is value in both passive and proactive adaptation, concluding that:

to act proactively — as policy makers, educators, learning-tools and content designers, and as theoreticians — seems like the least we can do to assure that the wedding of ICT and Education is orchestrated with mindful care and with the best interest of the new generation in mind. (2004, p. 56)

There have been a few notable experiences of the application of Second Life to learning. These would include Peggy Sheehy from Suffern Middle School, New Jersey¹; the work of Professor Gillian Salmon, Head of Beyond Distance Research Alliance, University of

¹ See Peggy Sheehy, edublog, a ‘running account of the proposal, acquisition, development, and implementation of the virtual presence of Ramapo Central School District on the Teen Grid of Second Life’ at <http://ramapoislands.edublogs.org/about/>

Leicester, UK²; and Carr, Oliver and Burn from the London Knowledge Lab, Institute of Education, University of London.³ In each of these instances, there has been a similar action research process occurring — looking from a developmental and practitioner’s perspective at any potential opportunities or problems associated with learning delivered within a virtual world environment.

The work of Carr et al. (2008/2010) is very useful as it seeks to define aspects of the virtual world engagement. It is important to note that their action research has been centred around the distance delivery of course modules at a higher education level for volunteer students. In summary, in an interim report on the project, they found that “Second Life can be useful, that Second Life can be ambiguous, and that participants may have very different perspectives on a session” (Carr, 2008, p. 1).

The early conclusion, quickly evident in the project, was that:

Our experience suggests that educators can use SL in combination with a conventional VLE to enhance the experiences of distance learners, and benefits can be achieved with relatively little technical expertise. We found that the SL sessions contributed to the social aspects of the distance course, supporting student confidence and engagement (and thus possibly retention) in the process. (Carr, 2008, p. 2)

It is perhaps not surprising that many of the project participants commented positively on the live and social aspects of Second Life. Another reflection made in the interim Report was that “working in Second Life made students reflect (and critique) pedagogic choices” (Carr, 2008, p. 2).

It is also relevant to acknowledge an ongoing discussion that became topical around the time of the controversial 2007 decision to add voice chat as a tool in Second Life. The debate drew out two different perspectives within the groups of users. These groups have been referred to by terms coined earlier by Bennetsen (2006): “immersionists” and “augmentationists.” Interestingly, groups of users with specific disabilities such as hearing impairment ensured their dissent was noted at the time, as the addition of a voice chat tool then meant a replication of their real life disability in the virtual sphere, something that had not been an issue until that point in time.

² See the work of Professor Gillian Salmon, Head of Beyond Distance Research Alliance, University of Leicester, UK with the Media Zoo:
<http://www2.le.ac.uk/departments/beyond-distance-research-alliance>
<http://www.le.ac.uk/beyonddistance/mediazoo/>

³ See the work of Diane Carr, Martin Oliver and Andrew Burn, the London Knowledge Lab, Institute of Education, University of London at
<http://learningfromsocialworlds.wordpress.com/>

Speaking of the user-traits of the different groups, Talamasca has pointed out that:

Immersionists tend not to disclose any of their [Real Life] RL information ...
The Augmentationists view SL as an extension of their RL, more as a tool to be used to interact with others. These residents see nothing wrong (in general) with more interaction and connectivity with RL (2006, para.2)

Concepts of Role in Second Life

The pseudo-anonymity of assumed avatars does seem to foster a freedom of expression for many teenage participants. This pseudo-anonymity can work ambiguously. Comments can be made under the guise of neutrality (an unknown persona), but in the knowledge that any comments could be traced by a course convenor or class teacher. Linked to this theme, in their early university-centred study, Carr and Oliver also made some pertinent observations about the concept of role within Second Life:

... feelings about the roles of student and tutor were carried into Second Life, while performance in Second Life was regarded as having real-life ramifications (2009, p. 10).

Real world relationships are assumed in Second Life, even with unfamiliar names. At the same time students hold on to their recognition of the 'role' of a teacher in both virtual and real space. Carr and Oliver observe that:

What is notable here is that, in this context, Second Life was not necessarily experienced as a 'place apart', where role exists to be played with or subverted, or risks taken with no repercussions. Clearly, users' bring their existing expectations to class with them. We did ... see indications that real-time, virtual space contact with fellow students felt more 'real' than other online contact to that point (2009, p. 10).

Carr and Oliver also highlighted that from their experience "it would be problematic to assume that *more immersed is better* for learning or teaching" (2009, p. 11). This suggests that teachers should focus on the mode of learning so that it enables participation on multiple levels within a virtual space, with an entirely new palette of pedagogical possibilities.

Description of Project — SCIL: Spaces for Learning

Parameters of Research

At this stage, SCIL exploration of the applied use of Second Life to learning is as an on-going action research project, with the intention of exploring the pedagogic possibilities of class interactions and learning within Second Life. Hatten, Knapp, and Salonga summarized action research as a process which included four steps:

1. Develop a *plan* of critically informed action to improve current practice. The plan must be flexible to allow adaptation for unforeseen effects or constraints;
2. The group members *act* to implement the plan which must be deliberate and controlled;
3. This action is *observed* to collect evidence which allows thorough evaluation ...
4. *Reflection* of the action recorded during observation is usually aided by discussion among the group members. Group reflection can lead to a reconstruction of the meaning ... and provides a basis for further planning of critically informed action, thereby continuing the cycle (2000, para. 5).

Perspective

The reflections and observations recorded in this paper are from a school Principal's perspective. At this point, commentary is primarily anecdotal, arising out of both the initial observation of, and discussion with, the teachers and students who are using the created virtual spaces for learning.

There are several questions driving the project forward:

- How can we divert components of new technologies such as Second Life for educative purposes?
- How do you manage virtual world technologies for the purposes of teaching?
- What strategies might be created to mainstream innovative and apparently successful pedagogy using virtual worlds?

Initial Phase (start of 2009)

It is against this backdrop that the SCIL created their Second Life presence for use by teachers and students. A number of early decisions were made in relation to the use of the Teen Grid Second Life, *Booralie* island. *Booralie* would not be used for online distance courses, already delivered through a Moodle-based portal. Its initial use and potential would be explored by both students and teachers collaboratively in a pre-implementation phase of free exploration.

Lead teacher. The *Booralie* project has been led from the start by SCIL Director of Innovation, Stephen Collis.⁴ His role has been varied:

- inspiring staff at a grassroots level to consider *Booralie* as a space for learning, mentoring staff who choose to opt in,
- oversight of the *Booralie* community at every stage,
- demonstrating pedagogic possibilities through recurrent innovation within Second Life and other virtual worlds, and
- interacting with students both within the virtual world — *Booralie*, as well as in real life.

Early experimentation. Around twenty students from across secondary grades volunteered to spend regular time each week within *Booralie*, so that they could experiment with the environment and also provide advice in relation to any parameters for interaction and construction that might need to exist in a more mainstream uptake. They constructed different buildings and explored virtual objects. SCIL viewed the space as a temporary playground for those selected. Students knew that all construction from the initial phase would be removed in time and that SCIL would assess lessons learnt from that phase as it developed the broader guidelines for student use of the environment.

One of the main outcomes of this initial phase was the recognition that students had the capacity to do all the building construction on the island and that there was a wealth of untapped talent capable of achieving rapid development of the island for educational use. This served two purposes — first, it removed pressure from staff to learn the skills to create buildings or other spaces within Second Life and secondly, it fostered a high level of ownership from the student cohort.

A number of teachers also ‘opted in’ during this time — with an intention to similarly explore the space for its potential as a teaching tool. This so-called ‘sandpit’ time is an important first step in many of the projects undertaken by SCIL. It allows for issues to be identified, confidence to be developed, and support directed to the right needs. Students were aware that after this initial phase, anything that had been constructed within *Booralie* would be removed, in order for the space to be constructed using agreed parameters.

The initial phase was a highly useful phase. Our experience was that students could be trusted to a high degree and that they would abide by requirements at different times to use text chat, rather than voice chat, so that conversations and interactions within the

⁴ See the work of Stephen Collis, Director of Innovation, the Sydney Centre for Innovation in Learning, <http://www.happysteve.com/teen-second-life/>

space could be monitored. The initial group also willingly took on a longer term role of being the effective ‘community police’ once wider use was encouraged.

At the same time the ‘early adopter’ cohort of teachers were keen to establish a number of virtual activities that could be undertaken by a larger group of students at the one time (i.e. a class of 30 students). Mathematics staff established a number of activities that required calculating the ‘virtual’ height of objects within *Booralie*; the languages staff quickly worked out the potential for text chat to extend and improve language conversation exercises. Ethics classes recognized the potential to get students to stand their avatar on a virtual line demonstrating their viewpoint on a range of topics. Students could then easily use text chat to provide a justification for their viewpoint and after a copying their text into email, send the transcript to the teacher for assessment.

Second Phase — Mainstream Uptake (2009 and 2010)

A *Booralie* land council was established and any student wishing to construct buildings for open-ended general use needed to apply to the Council to gain approval for their construction. General open-ended student projects are self-initiated, self-managed, and with parental permission. Team applications were favoured in the approval process.

The approval process included:

- a formal application,
- budget specification,
- land space and location desired,
- a statement outlining the potential benefit to the *Booralie* community of their building
- a timeline

In many respects, this process mirrors local government requirements when a development application is lodged. Teachers who requested specific spaces for particular projects were also invited to make their concepts known to the land council, who in turn could source a builder from within the student cohort.

Learning charter. Students are required to agree to a charter (see Appendix) before entering *Booralie*. The charter seeks to emphasize positive interactions as an assumption.

Student creativity. The observed student creativity within the virtual worlds was noteworthy and there appeared to be no gender bias in terms of construction-competencies. Building design was probably a lot less restricted by mature notions of aesthetics, in favour of far more creative contemporary or exotic constructions. The NBCS Art Gallery, that houses a constantly updated digital version of real life student art work, is housed in a gallery constructed as colourful pencils.

Some examples of student-created building infrastructure within *Booralie* includes a mathematics maze, a book shop, a French Café, a general Auditorium, a student driven Help Centre, a clothing store, a poster construction company, a fashion store and multiple digital objects. The key has been to enable students to take the lead in the type of

buildings that might be useful. This has reinforced the philosophical approach that views the applied use of Second Life as a tool for learning. It has been our goal to harness student creativity as the driver of ideas and development, rather than placing teachers as the creators of a world who have then invited students in.

Emergent pedagogy. Teachers have been using *Booralie Island* as a learning space for whole class use. In this second phase, the emphasis for teachers has been on the use of applied thinking tools within the island. It is very much about process, not content. The assumption of interactive anonymity continues within a lesson, although students are aware that teachers can identify different students.

Applied Thinking Tools

Underwater Disco

The ambiguity of Second Life existence has opened up some unexpected conclusions. After an analysis of student participation in rote learning tasks such as reciting French language declensions (often frequently avoided in real life), it was discovered that students were more inclined to answer a prolonged series of questions, with all responses visible, if dancing in a virtual disco. The quizzes are constructed to drill specific items of essential knowledge. It would appear that the virtual disco context provides a safe space for answering.

Poinkey's Pods

Another great tool for learning is Poinkey's Pods. Students sit on virtual chairs and are then teleported in pairs to pods in the upper stratosphere of *Booralie Island*. Students text chat — visible to the teacher. They might be asked to give their opinion on an historical event, chat as a character from an English text or perhaps engage in a debate while speaking (or text chatting) in French. Every 3 minutes they are re-teleported to finish up with another student and repeat the process. The Pods enable students to experience intense engagement on task — quite commonly for 30–45 minutes, before making a copy and paste of their own personal chat transcript and emailing that to their teacher as assessment.

Opinion Spectrum

Students walk their avatar onto a defined spectrum that places them physically (in a virtual sense) onto a line that demonstrates their strength of opinion on a topic. Some teachers get students to stand their avatar in front of a panel that indicates a viewpoint that they share. Students then text chat defending their position.

Microsoft Paint

Consolidation is an important part of the learning process. *Booralie Island* has proven to be a great space for celebrating student achievement. Most modes can be catered for within the space. Any learning can be readily represented in poster form using Microsoft Paint (e.g. diagrams for science; illustrated French vocabulary; topic summaries; exemplar poems). Any visual genre provides another great tool for learning. Avatars can

walk around and read or view the work displayed by other students and then convey their vote for the most enlightening piece by standing in front of a poster that they consider to be the best. It is our experience that students are very comfortable with this public voting process.

Maths Activities

One activity that teachers have developed is to use clumps of trees as a tool. Students have to measure heights via measuring bottom to top of z coordinates. They then perform statistical operations on that data and graphs are uploaded on to posters around those trees.

Radio Booralie

Another popular tool for highlighting student effort is on the Booralie radio station. This radio station is student managed and broadcasts can be saved as podcasts and provides an audio dimension.

SCIL Presence in the General Second Life

The Sydney Centre for Innovation in Learning has created a space on Jokaydia II to support teacher professional development programs. This space is still in development phase, but the intention is that it be used as an adjunct to real time professional development courses. In late 2009, SCIL was endorsed by the government's NSW Institute of Teachers as a provider of professional development courses for professional competency levels within the NSW Institute of Teachers' mandatory framework. This means that SCIL can provide courses in a range of areas, including Second Life, and teachers can credit these hours to their wider log of professional development hours.

The SCIL Building in Second Life on Jokaydia will provide a space for:

- pre-training consultations
- during training discussions
- post workshop follow up sessions

SCIL is located within an education focused island, developed by an Australian educator. Jokaydia II neighbours include Macquarie University (Sydney), Sloodle (Second Life Moodle), and Charles Darwin University. NBCS teachers have joined in a range of virtual conferences and have benefited from the exposure to a wider world of professional development, as well as meeting a range of similarly minded professionals from around the world. We have only really been scratching at the surface of possibilities.

Conclusion: Lessons from *Booralie Island*: Teen Second Life

As with any twenty-first century space for learning, it would be a mistake to in any way replicate teacher-centric instruction, rather, the emphasis should be on facilitating collaborative inquiry based learning, using the new opportunities of a virtual world.

From their observations of work in the virtual world, Carr and Oliver conclude that:

When theorizing virtual world pedagogy, it is important to appreciate that various forms of participation, attention and affect may be part of the learner experience. Education in *Second Life* involves multiple frames of reference — personal, social and technical — each of which may have implications for learning. To further our understanding of the pedagogic potentials of Second Life, we need to be clear about which of these frames we draw. (2009, p. 11)

Second Life presents many unique and highly creative opportunities — the challenge will be in keeping the focus on learning and the advancement of student abilities. There can be no ‘best practice’ model for learning in Second Life. Every experience is likely to be unique, providing an opportunity for learning that might not otherwise exist. As an additional space for learning, it is highly flexible, accessible and unifying. As within real time pedagogies, it will be the interactions that will become critical.

The very nature of the use of Second Life within a classroom means that it intentionally draws from the ability of virtual-world immersion to foster engagement, while being at the same time, philosophically aligned to the notion of virtual worlds as augmenting real life interactions. It is this capacity to augment the pedagogical toolkit of the real classroom that provides the real opportunity of Second Life in a secondary school.

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Appendix: *Booralie* — Student Charter

We know that in *Booralie*, this is how we will:

...be

Our real life names we may choose to give out, or we may choose to keep tucked away. Our teachers know who we are. We're all in this together at *Booralie*. We always work hard to include everyone in our projects, activities and conversations.

...speak

Booralie is for open, public conversations. We will keep private conversations for real life. In *Booralie* we'll say exactly what we mean so we understand each other.

...work

We'll come into *Booralie* at the right times that suit our real life.

...enjoy

In *Booralie*, laughter comes from good times together, and successes.

...create

Everything we do, say or build will make *Booralie* better. We're in *Booralie* to learn, explore, build, perform and collaborate.

...share

We are all teachers in *Booralie*, sharing knowledge and skills freely and actively with each other.