

Second Life Virtual Community - Resources for Educators

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Abstract

Second Life is an on-line, 3D, virtual community that provides an environment for students to learn and interact in a creative and collaborative manner. The author has investigated a number of existing Second Life resources to support instruction of a freshman information sciences and technology course. Key benefits and challenges that face educators who integrate Second Life into a course will be discussed. Second Life provides many opportunities to enhance the learning experience in a wide range of courses.

1. Introduction

Second Life is an on-line, 3D, virtual community that provides an environment for students to learn and interact in a creative and collaborative manner. Second Life was released in 2003 by Linden Labs and has increased in popularity over the past few years. Second Life boasts of millions of registered users, and typically there are between 30,000 and 50,000 residents logged on at any given time. Virtual residents are represented as user-customized avatars in Second Life and these avatars can navigate, communicate and engage in many activities such as walking, flying, riding vehicles, scuba diving, and dancing. Residents can engage in construction of 3D models and access a variety of media. Many universities, organizations, and corporations have established presence in Second Life to take advantage of this interactive, dynamic and global environment.

This author is currently teaching a project-based freshman-level information sciences and technology course at Penn State Abington College (Abington, PA) during the fall of 2007 which incorporates a 7-week module on the use of virtual worlds to enhance undergraduate education and campus life. The author has investigated a number of existing Second Life resources to prepare for the instruction of this module.

The Second Life course module began with a scavenger hunt task for the students to complete in the Second Life virtual world on an individual basis. This task required students to transport to a series of specific locations within Second Life and answer questions or document observations through text descriptions and pictures. Second Life enables users to easily take snapshots and download images to the PC hard drive for use in reports and documentation. This image capture capability was a useful tool in the course. Scavenger hunts (generally a list of 5 to 10 locations) are frequently used orientation exercises in Second Life because they provide practice in navigation and also provide a broad exposure to the wealth of content on Second Life. The scavenger hunt used in our course (acquired by this author at the EdTech Second Life facility) included Second Life sites such as Dell Computers (Dell City), Dublin, Louvre Art

Museum, Computer History Museum, Second Life Library, and Fort Malaya History Museum, and others. In addition to this scavenger hunt, students explored the NASA International Space Museum site (with interactive science exhibits; see figure 1 below), Drexel University's Second Life site focusing on science education and research, and a dynamic, interactive architectural site entitled "Reflexive Architecture." There are many Internet links to useful educational sites on Second Life [1].



Figure 1: International Space Museum (ISM) in Second Life

Students in the class also reviewed articles on health issues addressed in Second Life and explored other publications dealing with a variety of issues (education, commerce, and social) in Second Life.

A tour of the Sun Microsystems Second Life facility was provided by a Sun employee. Students in the class (accompanied by the instructor) explored the Second Life facility under the guidance of the tour guide, and we were able to ask questions. In the latter stage of the course module, students formed teams to investigate the use of Second Life to enhance a variety of educational themes, including history, architecture, medicine, and engineering. They also participated in simple building exercises using Second Life 3D modeling tools.

The remainder of this paper will highlight few key Second Life resources which this author found useful in developing skills, identifying educational tools, and networking in Second Life. A complete survey of resources in Second Life is beyond the scope of this paper, but these included resources should prove helpful to educators who desire to integrate Second Life virtual world into the curriculum. A discussion of judging student projects and some of challenges and pitfalls that face educators who integrate Second Life into a course will be presented as well.

2. Resources for Educators

This section will include a description of a few of the key Second Life resources and initiatives that this author personally found to be very helpful exploring Second Life with the objective of enhancing education through a virtual world.

Info Island [2] is a very useful resource for information and collaboration, complete with in-world docents and volunteer reference librarians and other specialists. Info Island is part of the Alliance Library System, and consists of several islands associated with a variety of projects including libraries, Science Center, Health InfoIsland, EduIsland (community of educators) and others. Info Island has also recently expanded its international component. Educators in any field, new to Second Life, are encouraged to visit the Info Island Welcome Center (see figure 2) and ask questions of the reference staff. Many educators (K-12 and college) from around the world can be found in this Second Life area networking about innovations in education.



Figure 2: Info Island Reference Desk and Welcome Area

International Society for Technology in Education (ISTE) [3] also has a presence on Second Life and operates a welcome center with in-world volunteer docents. The ISTE center (see Figure 3) in Second Life supports networking with educators, sponsored talks, tours and general resources. Interacting with live, experienced educators in-world is a highly effective resource for educators new to Second Life (and veterans also).



Figure 3: ISTE Main Center

The Information and Communications Technology (ICT) Library [4] of Info Island offers a collection of useful resources and tools for educators, including scripts (programs), devices and technologies, such as viewers for presenting PowerPoint slides and other useful information (figures 4 and 5). There are many free materials and sources of information available here, and this facility also houses a store where instructional tools can be purchased. Some of these tools are important when establishing a classroom, training center, or exhibit area for teaching and learning in Second Life. Below (figure 5) shows a slide viewer which can display standard PowerPoint slides and also can respond interactively to multiple users in Second Life.



Figure 4: ICT Library



Figure 5: PPT Viewer Tool

There exist other educational consortia that support educational innovation and research projects within Second Life such as the NMC (New Media Consortium) [5]. Another initiative, SciLands [5] provides islands and resources for innovative Second Life projects specifically in the areas of science and technology. Finally, SimTeach [6] wiki provides useful web-based resources for educators and researchers working in Second Life, including FAQs and educator guidelines.

3. Benefits and Challenges

There are many potential benefits to integrating Second Life into the curriculum. One key benefit of Second Life is to facilitate project-based work and collaboration. Second Life also provides an opportunity for students to interact with other students and faculty from around the globe – to share ideas in a 3D environment. One example of student projects designed and exhibited in Second Life was a section of a contemporary fiction course taught at DeSales University by Beth Ritter-Guth in August of 2007. This author had the opportunity to personally evaluate the student class projects, interact with the 3D exhibits that were designed by the students to reflect their novels (e.g. Harry Potter castle), and discuss the projects directly with the students present at the exhibit site in Second Life. It was a very successful experience for judges, spectators and student exhibiting their works. Second Life supports the tools to rapidly develop 3D models that can then be engaged and evaluated by Second Life residents from anywhere in the world.

In October of 2007, this author participated as a judge in an informal Second Life motorcycle design contest for students organized by IST faculty at Penn State University, University Park (see figure 6). Although there were only 3 student participants (and 5 faculty/staff judges), the event again demonstrated that student projects and subsequent exhibits and contests are a manageable and highly effective tools for educators and students.



Figure 6: Motorcycle Design Contest in Second Life

Here is summary of key benefits of using Second Life in an educational setting based on this author's experiences.

- 1) Access to a great deal of existing content (museums, interactive exhibits, libraries, corporate sites, classrooms etc.)
- 2) Provides an immersive 3D environment
- 3) Provides communication (text, voice), networking, and interactions with a large community of users
- 4) Supports 3D modeling and scripting (programming) and supports a physics engine (Havoc)

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- 5) Second Life basic account is free and allows 24/7 access to resources

Here is a list of challenges and problems potentially faced by educators using Second Life in an educational setting.

- 1) Second Life client supports a limited selection of graphics cards. (In this author's experience, many students in my class (more than 50%) were unable to run Second Life from home, thus limiting the time they were able to complete projects and collaborate with team members in Second Life.)
- 2) Linden Labs frequently updates the Second Life client which makes installation in school computer labs potentially difficult. (Some institutions run the SL client from flash drives.)
- 3) Students under 18 are not permitted to access Second Life, and would need to utilize the Teen Grid (for ages 13 – 17). This would mostly affect a freshman college course. It also means projects in SL cannot be easily shared with K-12.
- 4) The learning curve for Second Life is quite high. Time is required for students to learn to master navigation, communications, camera controls, adjusting appearances, building, dealing with various media, organizing inventory of resources and objects.

4. Summary and Conclusions

Second Life virtual community provides many benefits and opportunities to educators to improve and enhance learning. Second Life provides a 3D, immersive environment which encourages networking, collaboration, visualization, and creative design. There exist many resources in Second Life to assist the educator in gaining the knowledge, contacts, and tools to apply Second Life in order to achieve desired educational outcomes. One outcome experienced by the author was the facilitation of student project design work and project exhibits through the use of the Second Life environment and tool set. Despite some challenges and limitations, dealing mostly with the Second Life client technology, Second Life is a very useful tool for the educator and provides an opportunity for educators to design new and highly effective learning environments.

5. References

- [1] Simteach wiki: http://www.simteach.com/wiki/index.php?title=Top_20_Educational_Locations_in_Second_Life
- [2] Info Island website: <http://infoisland.org>
- [3] ISTE website: <http://www.iste.org>
- [4] ICT Library website: <http://ictlibrary.googlepages.com>
- [5] NMC Second Life website: http://sl.nmc.org/wiki/Main_Page
- [6] SimTeach Wiki : http://www.simteach.com/wiki/index.php?title=Second_Life_Education_Wiki