Distance Education Services through Second Life:
Advantages and Obstacles for Academic Librarians to Consider

by Eric Fisher

While there are a number of similar virtual worlds in existence, clearly Second Life (http://secondlife.com) dominates the market both in terms of adoption and in terms of name recognition. The idea of using Second Life, or SL as it's commonly called by its users, to provide library support to distance education students is certainly an intriguing one. Just within the past two to three years it seems that professional library and educational literature has exploded with articles like this one about using Second Life for educational purposes, mainly because Second Life's capabilities provide educators with the ability to teach classes in ways not possible or not economically feasible in the real world.

For example, Vassar College's stunning virtual reproduction of the Sistine Chapel (Vassar 202, 90, 25) allows users to experience Michelangelo's entire masterpiece in context without having to travel to the Vatican. The reproduction of the Sistine Chapel at Vassar Island is more immersive than even the Vatican's own online virtual tour of the building (Vatican Museums, 2009)—second only to actually being there.

Another example would be the Second Louvre Museum (Tompson 178, 73, 101) which is not actually a virtual reproduction of the Louvre, but rather a virtual art museum exhibiting original works and sculptures created natively or reproduced in a digital medium. Still other examples include an extremely impressive reproduction of the Cologne Cathedral (Koelner Dom 6, 130, 35) as well as two other fascinating locations which sadly no longer exist in Second Life-- a reproduction of Saint Michael's Cathedral and Virtual Starry Night which was a Second Life Van Gogh museum complete with walk-in reproductions of some of the artist's works.

While the previous examples illustrate some of the ways that Second Life can enhance students' learning, I believe that perhaps the most exciting aspect of using Second Life for distance education is in the ability to replicate a feeling of physical presence or "being there." Having taken a distance course during my library degree program, I noticed that one aspect of regular in-person classes that was painfully absent

from the online course was the in-person classroom dynamic. We used discussion boards on which we were required to maintain a certain level of activity. However, this simply did not replicate the ability of a live classroom discussion to spark new thoughts and understanding about the material. With its ability to closely replicate the physical classroom and its built-in voice chat capabilities, I believe that, if used correctly, Second Life has great potential to help reduce the effects of the physical separation between students and instructor inherent in distance education. Second Life is not, however, a panacea for the challenges of instructing students equally effectively online as in a traditional classroom environment.

Basic Terminology

Before analyzing the advantages and challenges of using Second Life to offer library services to distance education students or in instruction in general, it may be helpful to cover a few terms used in this virtual world.

Second Life Viewer – The software program used to access Second Life.

Avatar or AV – User's Second Life character.

Coordinates – A code containing a specific location in Second Life. An example would be (Vassar 202, 90, 25). The first part specifies the region while the three sets of numbers specify latitude, longitude, and elevation. Coordinates can be entered into the Second Life Viewer map to transport to a specific location.

Slurl – Second Life URL links that also point to a specific location in Second Life. A slurl entered into a standard Web browser will open up a map on the Second Life Web site showing the map of the slurl location. The slurl for the Vassar coordinates above is http://slurl.com/secondlife/Vassar/202/90/25.

SL – Second Life.

RL – Real Life.

Script —A bit of programming code written in the Lin-

den Scripting Language (LSL). It allows for the animation of objects in Second Life. The ability of an avatar to sit in a chair, drive a virtual car, etc. is made possible by scripts.

Animations or poses—an animation or a pose is a file that controls the avatar's movement in special circumstances. A dancing avatar, for example, is using a dance animation. In the example above under scripts, the script would activate the sit animation. In this way scripts and animations work closely together.

Prim – A primitive object which is the basic building block of Second Life. Every item in Second Life is made of a prim or multiple linked prims. Basic prim shapes include a cube, a sphere, a cone, a cylinder, and a few other basic shapes. To see a short tutorial by Torley Linden demonstrating what a basic prim is, visit http://www.youtube.com/watch?v=8tlcXwR-A2s.

Scripted item—A prim or collection of linked prims that contains a script that gives the prims a function. For example, a light switch in Second Life that can turn a lamp on or off when clicked contains a script that tells the lamp how to react when the switch is clicked.

Texture—A basic image file, like a JPEG or other image format file, that can be placed on prims to give them a certain appearance. For example, a basketball in Second Life is a round prim with a basketball texture, like a JPEG picture of a basketball, placed on its outer surface. Everything from a brick wall to the grass on the ground to an avatar's skin contains a texture giving the items their appearance.

Lag – When the performance of Second Life slows significantly or freezes every few seconds. Lag can also cause items in Second Life to not appear correctly.

Linden – This refers to either the monetary unit of Second Life (occasionally referred to as Linden dollars with the current exchange rate at around $185 Lindens to each U.S. dollar) or an employee of Linden Labs. Linden Labs employees' Second Life avatars are all given the surname Linden to help other users identify them easily while inworld.

Inworld – In Second Life.

Mainland region – Large piece of land, usually divided into several different parcels owned by different users, located on one of the Second Life continents. Mainland parcels can be purchased from other users but most of the aspects of the region, such as terrain, are controlled by Linden Labs.

Private region or island – An entire custom region purchased by an individual, business, or institution that is usually run from its own private dedicated server. Private region owners have more administrative control over their land than those who own mainland parcels.

TP – Teleport; the main mode of transportation in Second Life.

Initial Analysis

While a well designed class taught in Second Life can have many advantages to a traditional distance education course, a poorly designed class in Second Life is inferior to a well designed class taught through a Web site or course management system. Luckily there are numerous resources that have been developed for Second Life educators. One extremely exciting resource which has recently been developed by Ball State University's Institute for Digital Intermedia Arts (IDIA) is a toolset that creates a data interface between Blackboard and Second Life (Ball State University, 2009). Another particularly extensive resource on the topic of designing courses in Second Life is SimTeach (http://www.simteach.com) which includes a blog, a forum, and the Second Life Education Wiki (SimTeach, 2009).

Moving around and interacting with the environment in Second Life can take a new user a little while to master, so there is a bit of a learning curve. Before using Second Life in a distance course, instructors should have a good understanding of not only their students' comfort levels when navigating their avatars inworld but also their technical savvy and computer capabilities. It is easy to assume that a student taking a distance education course is relatively comfortable using various hardware and software technologies, but that's not always the case. I've personally assisted several distance education users who were struggling with even the most basic technological requirements of their courses. Such students would likely find Second Life more of a hindrance than a help when trying to learn course material.

This is an important consideration even for librarians hoping to develop services in Second Life for distance students. One must ask whether the Second Life medium will add necessary value to the service or if it will make the service more difficult to use and thereby reduce its value. Even if users are relatively comfortable with the technology, they may not have broadband Internet access or a computer capable of running the Second Life viewer. Students, instructors and librarians should understand these points and feel confident that they have been adequately addressed before developing instruction or services in Second Life.

Finally, librarians who are considering supporting a distance education program or course through Second Life should consider just a few more points before attempting such an undertaking. The most critical question is whether or not the instructors in the distance program are using Second Life in their courses. If so, then offering library support to their students would probably be a worthwhile endeavor. If not, then that librarian might find it a waste of time unless an assessment of the distance student population has been conducted, and it has been determined that many are current Second Life residents.

Even during my brief visit to San Jose State University School of Library and Information Science Second Life campus (SJSU SLIS 127, 128, 33), I found that the few students I talked to felt that the experience of taking classes in Second Life was a valuable one but admitted that they had little or no previous experience with Second Life. This is obviously anecdotal evidence and may in no way represent the larger student population as a whole. It is, however, reason enough to take the time to conduct a survey or other study to determine how many of the students one hopes to offer services to in Second Life are even there in the first place.

Most Well Known

This June marked the official sixth anniversary of Second Life. According to "Second Life: The Official Guide," Second Life's predecessor LindenWorld went online in 2001 but was only accessible to Linden Lab employees. Shortly thereafter, LindenWorld was renamed Second Life, and a limited number of outside users started receiving invitations for alpha and beta testing in March 2002. The public beta for Second Life opened in April 2003 (Au, Rymaszewski, Wallace, Winters, Ondrejka, & Batstone-Cunningham, 2007, p. 276).

Since that time, multiple universities and libraries have established presences in Second Life for the purpose of providing educational and reference services. The Alliance Library System is one of the best known library groups to establish a presence in Second Life. Alliance, a library consortium consisting of 257 public, academic and school libraries in Illinois, first conceived of the Alliance Virtual Library in Second Life in April of 2006 and has grown to become one of the most well-known Second Life library initiatives to date. From its humble beginnings on its own region named "Information Island," it grew in its first year from one island into twenty with a number of libraries setting up residence on nearby connected regions. This group of library islands soon adopted the moniker of the "Alliance Information Archipelago" or more commonly just "Infor-

mation Archipelago" (Peters, 2007, p. 6).

As of May 26, 2009, the Alliance Library System listed 45 member islands dedicated to libraries, museums and other educational topics or organizations, including the American Library Association, Stanford University Libraries, the Chicago Public Schools Department of Libraries, and the San Jose State University SLIS, itself a well-known Second Life library destination. This is just a small number of the resident institutions of the Information Archipelago.

In a recent editorial article titled "On Being a Virtual World Librarian: Experiences in Offering Live Reference Services in a Virtual World," Samantha Thompson, who is the Reference Coordinator for the Alliance Virtual Library, sheds some light on the services offered and offers some usage statistics. Thompson, or Hypatia Dejavu in Second Life, offers a positive and supportive view of offering reference services in Second Life.

Even so, Thompson admits that they usually only answer about 125 questions a week, or an average of 1.5 questions per service hour, though she believes that some of the reference volunteers are underreporting their statistics. Ultimately Thompson believes that serving as pioneers in this digital reference frontier is just as important a task as serving large numbers of visitors at this stage of the services' development (2009, pp. 222-223). Being that the service is staffed by 36 volunteers and receives little to no funding, such a luxury is indeed worthwhile but not necessarily possible for institutional libraries that may need to see more significant and timely results from their efforts.

Several institutions have set up presences in Second Life wholly independent of the Information Archipelago. Vassar College, as noted above, has its own virtual campus, complete with a stunning recreation of the Sistine Chapel. Even Ball State University (Ball State University 136, 136, 22) has created a representation of its campus on Second Life containing impressive representations of some of its campus buildings and trademark features such as the Beneficence statue and the Shafer Bell Tower. The Ball State University Libraries' Archives and Special Collections offer reference services in Second Life for seven hours each week.

Easy Installation and a Small Program File

Installing the Second Life software is as simple as pointing a browser at http://www.secondlife.com and downloading the latest Second Life Viewer Software. Within minutes a new user can be wandering around

Orientation Island fighting to control their avatar and bumping into other new users as they each take their first few tentative virtual steps. The viewer is also a relatively small program as it does not require the user to keep much in the way of inworld content locally. Much like a Web browser, the viewer accesses the content from Linden Labs' servers.

There are some disadvantages to this system. One of the main disadvantages is that content is not downloadable from the Second Life servers, despite Linden Labs' claims in the Second Life Terms of Service that content created by a user is the property of that user (Linden Labs, 2009c, section 3.2). If users choose to end their memberships on Second Life, they are generally not able to take their created content with them unless they find a method of backing up their inventories locally using a program like "Second Inventory" (Media-Leader, 2008).

Even if users have not chosen to end their memberships in Second Life, it is not all that rare to hear of instances of inventory loss of various magnitudes. Fortunately, most are not as drastic as that experienced by blogger Jayson Harshbarger whose entire Second Life business inventory was wiped out because of a billing error according to his blog "Hypercubed" (2008). This detail may cause institutions that are contemplating the investment of time, effort, and resources into developing a presence in Second Life to stop and consider whether or not the benefits of exploration in the virtual world outweigh the disadvantages of the lack of portability of those objects created inworld. In the case of academic libraries within larger educational institutions, this may leave very little choice as to whether or not providing library services to distance education students is even a viable option.

(Relatively) Stable Environment

Second Life has its issues. Occasionally the Second Life servers can get bogged down, causing varying amounts of lag. At its mildest, lag can cause a texture or two not to load properly, causing another avatar or object to look like it has been painted gray or to appear as a white cloud. At its most severe, lag can cause the entire area that the user's avatar is located in to grind to a halt, and it often crashes the Second Life viewer. As most islands and regions are located on their own servers, lag that is affecting one area will not necessarily affect another area. This lag may be caused by the age of the server that houses the region, the number of users at that location at one time, the number of scripted items that are being run on the land, etc. Lag can also be alleviated to a certain extent by changing some of the display options in the user's viewer software.

Despite this seemingly bleak assessment of Second Life's capabilities, in reality it is a relatively stable environment despite the inevitable bogging down because of network traffic. Linden Labs routinely conducts "rolling re-starts" during which they systematically restart the entire Second Life system a few servers at a time. Users who are logged on and currently in a location that is being restarted receive a warning at 10 minutes, five minutes, and one minute before the region restarts. Those who remain in the region at the time of the restart are logged off of Second Life. A region restart usually takes only a moment or two, and users will be able to log back on as soon as the region server comes back online. Since the restart is rolling, users can avoid being logged off by moving to another location inworld. While this is an important practice to keep the servers running optimally, it can certainly be an annoyance if a rolling restart shuts down a region during an instruction or reference session.

Adult Content

In June 2009 Linden Labs released the Second Life viewer version 1.23.4 which contains, among other features, a new adult content filter. More information on the new adult content filter can be found by searching the Second Life Web site. Essentially, however, what Linden Labs has done is to segregate adult content, which they define in the Second Life knowledge base on their Web site as intensely violent or sexually explicit, from the mature (R-rated) content and the PG content. An entire adult "continent" has been created to house adult-themed regions, and private islands which have adult content must be registered as such. The Second Life inworld search engine has been filtered as well so that adult content is excluded from search results unless the user has submitted to an age verification process and has enabled adult content searching in their viewer software options menu (Linden Labs, 2009a).

This is a positive step toward keeping inappropriate content out of lands that are intended for academic use. However, one concern regarding the search filter is the possibility that non-adult content may be mistakenly filtered from searches since it is not completely clear how Linden Labs identifies and categorizes the search content. Further experimentation will be necessary to gauge the accuracy of this new filter.

Costs of Establishing a Presence

While an institution could choose to purchase land on one of the "mainland" continents, that is, within a region controlled and administered by Linden Labs,

it seems that many institutions choose to purchase a private region or "island." There are numerous advantages to purchasing a private region, including the increased control over the land and the increased prim count. Prim count is especially important because it determines how much building one can do on the land. The physical size of the land is usually only important when purchasing land because it is linked closely to how much the land can be developed. About 4.4 square meters of virtual land are needed per single prim.

Another great advantage to purchasing a private region versus purchasing a mainland region, according to Second Life's Web site, is that educational institutions receive a discount on the purchase price (the $1000 fee is reduced to $700) and the monthly tier fees (from $295 for most users to $147.50 for educational or non-profits). While this educational use discount is a welcome feature, one statement on the bottom right corner of the page describing private region pricing may cause slight concern. It essentially states that Linden Labs reserve the right to cancel an educational user's account and take back its land or retroactively charge the user for the amount of the discounts if Linden Labs determines "…at its sole discretion, that a region is not being used for educational or non-profit purposes." (Linden Labs, 2009b)

While it seems highly unlikely that Linden Labs would choose to exercise this power indiscriminately, it is unclear precisely what criteria determine educational or non-profit use. For example, suppose that a university's alumni association started a fund-raising campaign on Second Life. While this sort of activity supports the educational objectives of the university, it is not strictly educational use. It is also debatable if conducting fund-raising activities would still be considered "non-profit" use based on Linden Labs' "sole discretion." Linden Labs would probably only exercise such power in response to gross misuse of land. However, with the time, expense and planning that goes into building an online presence in Second Life, knowing that users' "purchased" virtual lands can be confiscated and their accounts canceled should certainly give prospective developers pause. Such a situation only illustrates the reality that despite Linden Labs' assertion that land-owners are purchasing virtual real estate in Second Life, the landowners are really just renting space on a server after paying an initial set-up fee.

Conclusion

Second Life is truly a remarkable virtual environment. It allows a savvy user or educator to develop a variety of environments, reproduce famous landmarks and

develop distance instruction that is immersive and dynamic. It should not, however, be considered a solution in search of a problem. Distance educators who wish to develop instruction that can be made possible only through the use of a virtual environment such as Second Life should absolutely consider using Second Life in their instruction sessions. Distance educators who are just considering moving instruction into Second Life because of its sudden popularity in academia and who are struggling to figure out how Second Life could be used in their courses should just abandon the idea because they do not want to use it for the right reasons. This applies equally to librarians wanting to offer library services to distance students in Second Life. If the class or program that the librarian wishes to support in Second Life already uses Second Life, then this is a natural step to take. It is going where the users are, not trying to force the students to come to the librarians. Second Life is a wonderful tool for education if used properly, but the barriers to entry with regard to time and funding may simply be too high if one is not using it to address a specific need.

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