Second Life Interface Assessment Journal Study

Introduction

According to Anders Gronstedt, Second Life is "a social networking tool that takes online interaction and collaboration to unprecedented levels, breaks down hierarchies, and eliminates geographic boundaries (46)." SL encompasses the ability to build an environment around which people can connect (Warburton, "Second Life" 420). SL is not a game, nor real life, but a hybrid with social interactions added to an online dimension. The environment is highly customizable and, unlike the gaming environment, people are not required to "win anything or shoot at anything" (Floyd et al. 4).

SL has been used in education but its potential for immersive learning is great enough to change the nature of traditional methods of education. What are the advantages to using SL? What are some of the barriers to its use? My goal is to analyze my behavior in the interface assessment journals and, using human interface design criteria from Apple, IBM, and Microsoft, to assess the Second Life interface and make suggestions for redesign. I will also touch upon the broader implications of SL and future of libraries in Second Life which are relevant to the topic of SL redesign, if only because information needs should be planned for in any design interface.
Methods

The methods involved immersive participant-observation fieldwork during the course of the semester. I visited SL to complete several assignments and developed an Interface Assessment Journal with data to analyze in this paper in a longitudinal self-study.

Human Interface Guidelines

Apple, IBM, and Microsoft all have documentation that outlines interface guidelines. I used the Apple Human Interface Guidelines but all of the documentation had several points in common.

- Ease of use
- Adaptability and Interoperability
• Appearance

• High performance and Reliability

Ease of Use

While Apple referred to ease of use, Microsoft and IBM recommended keeping things simple. Initially, as I was completely unfamiliar with Second Life, I went through the instructions with the LIS 601 Library Orientation Guide. There was quite a learning curve, one reason being that the 3D aspect was difficult to describe in a two-dimensional guide.

I believe that the introduction to SL on Orientation Island would have been easier than reading the library guide instructions and trying out the controls. I did finally go to Orientation Island after using the library orientation guide and I think it was more helpful because there were actually inworld exercises to practice moving my avatar and other objects. Perhaps brief video tutorials included in the library guide would help people visualize and orient their avatars. I had special difficulty with Viewing since I had to read the instructions and then try to use the viewer. If specific instructions need to be given to the library students to begin their introduction, an LIS 601 orientation to Second Life could be developed in Second Life. Instead of students starting at the generic Orientation Island, they could start at the LIS 601 Orientation Island.

Not only did I have difficulty moving around but at some points I also had difficulty following instructions because the SL documentation needed updating for the new viewer. For instance, at one point in the process of creating a poster, the instructions indicated that a pie chart would open up with a click. I never did find this pie chart. This type of discrepancy dimmed my confidence level since I was not always positive that I followed the instructions properly. As another example, the instructions to "Create Landmark Here" in the World menu was "Landmark This Place" in my World menu.
When I visited the Learning Curve for an early assignment, my most urgent need was how to find central visitor area mentioned in the notecard. It was a bit like a scavenger hunt since I was unsure of the location as I moved through the navigational instructions. I finally ended up flying over the whole area. I explored many of the buildings before I found what I assumed was the central visitor area since there were freebies there as mentioned in the assignment. It must have been a couple of hours before I finally found it. There were places where signage could definitely assist in clarifying information for orientation to the region.

I tried on some of the free clothing that was available in the central visitor area and something went awry. I was logged out and spent my entire second visit as an amorphous cloud. On one hand since I couldn't walk straight yet, that was not too bad since I could postpone mobility practice. I did have to spend quite some time searching the web and discovered the Develop menu settings where I could resolve into a Test Avatar. It was a little frustrating the first time I became a cloud since I wondered if my avatar would ever rez again and, since then, I have used this Test Avatar several times. This problem appears to occur if I change the avatar's appearance too many times. I distinctly remember how concerned I was as to whether I would finish the assignment if my avatar never appeared. In the Windows interface guidelines, one of the points stressed is that users' overall perception of software is often based on bad experiences instead of the good ones.
As I acquired more freebies to copy into inventory, I was sometimes confused as to which object was a container and what was really ready to wear or use. Not everything comes in a box and the box icon is sometimes a wearable item. In the Windows documentation, using a standard layout meant that people could become comfortable with the interface. I don’t know if this is possible in SL since everything is user created but it can be confusing. As an example, while sitting in the audience for a Banned Books discussion panel, there was a huge box that just appeared in front of me obscuring my vision a couple of times and I noticed chat that referred to someone having trouble with his avatar. I don’t know if there is an easier way to organize the SL inventory but this is one of the places, like computer files, where a person could be overwhelmed by the sheer numbers of objects. I had to take about 45 minutes to organize my inventory one day. I cannot imagine being in SL for a while and having to organize a rapidly burgeoning inventory since obtaining items is as easy as clicking.
The Windows guidelines for ease of use include reducing the effort, knowledge, and thought required to use the program. One of the ways to reduce effort is to place important information directly on the screen. The chat, viewer, and dashboard are good examples of this type of information although "importance" is also relative to the user's perspective. However, there is so much customization possible that this flexibility requires a steeper learning curve. Just trying to figure out how to attach group tags took me a few days. Group tags identify an avatar as part of a community and thus, are one of the ways to bond with others who have the same interests (Peters 8). Tags also help in reducing the amount of knowledge you need to interact in SL. While wandering around the Learning Curve teleport landing area I noticed an avatar who was hunched over. I realized when I passed her again that her tag said she was away. This was helpful to a newbie since it indicated that I should not ask her questions and feel offended when she did not respond.

Another potentially important element is the notifications menu, which is almost hidden on the bottom of the screen. It should pop up like the group chat, along with the instant messaging screen if used. I missed seeing notifications a few times when I was busy looking at other things. I will also need to check if the viewer has keyboard shortcuts for ease of use.

SL needs a better search engine. As a librarian I am used to Boolean and proximity operators and was disappointed in the inability to do an advanced search. This lack showed itself especially in the Businesswear assessment study which was a timed assignment. I searched for business attire and some of the search results had little or no business attire that I could find. This increased my anxiety level since I only had a half hour to find something to wear and shopping for business attire is not one of my strong points.
Adaptability and Interoperability

A good interface should be adaptable to different situations and locales, whether the user is experienced or not or lives in the US or in a foreign country. SL, by its nature, is a great example of an adaptable interface. People can start off in an empty plot of land, with an avatar whose appearance can change completely. When I teleported to the Learning Curve, I flew around and noticed the floating SciFi library which was a good place to visit for ideas for the Banned Books Week project. One of the implications of the floating building is that users are not limited by gravity or material when building in SL. When I could not find what I was looking for, I finally took a balloon tour just to see everything from the air. I have never been in a balloon in RL. SL is ultimately adaptable since everything is created by users. In that aspect it is different from gaming environments which are created by programmers for the gamers (Gronstedt 46).

The time of day is also customizable. It is nicer to explore in the brightness of midday for me but at the Jazz Cat club, I noticed that Zooe changed the sun to night for the right ambience. I suspect that many people preferred the night for Halloween events also; I know that one of Sashi Kira's photos for our group project depicted her avatar at a cemetery at night.

SL appears to be adaptable to almost any kind of lifestyle. Some of the areas I explored for assignments were not places I would visit of my own volition. For instance, I visited Big Daddy's 80's Club and noticed I was not dressed properly for such a milieu. People were chatting using internet acronyms and putting together words and phrases I didn't understand. I also wondered if people had their chat phrases already created on their computers for pasting into the chat stream since some of the chat messages were created of symbols that looked like waves surrounding a few words. This was not only an example of an adaptable program, but also an example of my social awkwardness at a club I would probably not visit in RL.
The customization included dancing so I did have my avatar dance, using the ladies' dance ball and she started undulating in a way I never could (or would) even in my most agile years. There was one female avatar that was swooping and sliding around very rapidly on the floor between people's legs! That type of coding must have been fun for the coder. I was more comfortable touring the library environment than in many other regions I have visited since that first trip. Even though the navigating was strange at the time of my visit, the objects were familiar.

SL is interoperable in many diverse operating systems and apparently across countries, since I have met people from other countries on my visits.

Appearance

Appearance is one of the elements where SL does an outstanding job and, aside from the social characteristics, was what drew me back to exploring some of the regions. Enjoying an underwater classroom, a floating fantasy forest, or a steampunk region are all possible in SL. I visited Vassar Island to view the Sistine Chapel with Michelangelo's paintings, created to explore virtual learning ideas. Being able to view the chapel in virtual reality and take the whole site in perspective was unlike viewing the paintings one at a time in a book. This is where the 3-dimensional and visual capabilities of panning and viewing in SL are really appreciated. I did not have to lie on my back to view the ceiling (à la Michelangelo) or need binoculars to view the detail in some of the paintings near the ceiling. I floated around slowly to appreciate the gorgeous execution of the frescoes and the labeling of the paintings, another benefit of simulation in virtual reality.
Avatars can be quite realistic in appearance, be they mobile on two, four, six, or eight legs. Hair moves, eyes blink, the figure changes position from time to time. I once asked Gweldorf Blenheim about his habit of constantly touching his hair and apparently he was using a free Animation Override (AO) which was where the hair-smoothing action came from and which other avatars had commented on in the past. Having too many prims on the avatar can slow things down so appearance must not be overdone so much that it becomes difficult to interact inworld. This also happens when my avatar is in a place with a lot of scenery, such as the Botanical Gardens.

While working with our group on the Banned Books Week project, I reflected on the difficulty of differentiating sometimes between my own experience and that of my avatar. I end up sometimes thinking of myself as a dichotomy of self, especially when I receive information, and avatar Dawn, especially regarding appearances. This is not necessarily about clothing or physical appearance per se but can also include the times my graphics capability cannot keep up with the rich visual potential of SL. Warburton, in his blog Loving Your Avatar, plotted the amount of time investment spent working on
avatars and the empathy users develop for them. One can become attached to an avatar through social
ing relations and through the time it takes to change the avatar’s appearance to suit the RL owner.
However, if technical problems prove to be too difficulty or time-consuming, this often results in little or
no future inworld activity.

Realistic appearance also extends to avatar mobility. During one of my visits to the Community
Virtual Library, I saw another avatar just skipping from place to place and wondered how she did that
and if it was an AO. My forward movement is more of a stride. Dancing at the Banned Books party was
also an enjoyable group experience. The ability to fly around is one of the better experiences in SL. It
provides me, the GPS-challenged, with the opportunity to place a visual map in my mind of the
interesting locations I might want to visit.

Flying at Rachelville's Underwater Garden

High Performance and Reliability

The technical difficulties I experienced were probably among the most frustrating issues with SL.
According to Luo and Kemp, the number one obstacle to educating in SL is technical difficulty (58). I
received my laptop just before the fall semester and it is fast and has a lot of memory although the graphics card is for business and not for gaming and does not meet the minimum specifications for SL. When I first visited the Learning Curve, I was logged out of SL with an error saying the region might be experiencing difficulties. In a previous mentioned example, I was logged out of SL and returned as the infamous squirming cloud. This actually happened several times over the course of the semester. I did some research on the web and adjusted my settings and have not had as many problems since then.

One of the assignments took me to Chichen Itza where I toured this recreation of a Mayan archaeological site using a butterfly tour guide. I had difficulty with the audio hud and could not figure it out. I checked all my settings and noticed that the audio did play but was intermittent. It sounded at times as if the speaker was in the middle of a sentence when the audio came on. Audio tours should be accompanied by a speakeasy text stream for people who are hearing-impaired or for those people experiencing difficulty with the audio stream. Failing the audio tour, I tried to figure out what I could search to receive some information on the same topics of Chichen Itza. I could only think that searching the web or reference books might garner me some of the information but there was no way of knowing if it would be similar to what I might have experienced.

After reviewing settings and checking anything with "audio" I flew around to find that butterfly tour guide again. My sound effects were working so I figured I would give the tour another try. I never did get the audio to work so I classified this experience as a real disappointment. In his article, Facing Realities, Joe Sanchez claims that SL loses 90% of new users (7). If technical difficulties are the issue, mentors might help in resolving some of those problems. My stress level was pretty high while exploring since I had so much work and could not complete this part or even think of an adequate go-around. I thought maybe my avatar could walk around to see if there was any visual information but then I decided to go to view one of the other sites instead. I reflected upon new technologies and the ability to fly instead of walk. After the freedom of flying, my mind classified "walking" with "toiling" or "plodding"
and I thought of the song "How Ya Gonna Keep 'Em Down on the Farm After They've Seen Paree?". Flying over the ruins of an ancient Mayan civilization was like something out of science fiction and alleviated a little of the stress I felt in not being able to listen to the tour. The willingness to embrace novelty is one of the enormous advantages of SL but the technical difficulties need to be overcome (Luo and Kemp 163).

![Touring Chichen Itza on the Blue Butterfly](image)

Although I did have technical issues with SL, my visit to the Virtual World called Inworldz with Sashi Kira showed that the Inworldz interface had even greater lag than SL. At one point I was walking over to Sashi in the newbie store and started striding backwards through the walls and over quite an expanse of ocean. I helplessly watched Dawn move over the water while I used the Advanced menu to stop animating my avatar but even though I stopped walking, I couldn’t move anywhere. I finally had to force close the program. I was kicked out of the program twice in one night. Sashi referred to our stop-and-start motion as lurching and that is very descriptive of how we looked in Inworldz. Legs and feet
tended to do things that are not possible in RL, like bending pretzel-like or sinking into the ground regularly.

Several times I saw Sashi thrashing around in Inworldz, resembling someone swimming in mid-air. She was apparently trying to walk at those times. I didn't have the thrashing problem, just the lurching and that one time I boldly strode through walls and on water. While I was waiting for Sashi in one of those thrashing moments a mentor asked if anything was wrong and offered assistance but could not help with the technical issues. Because I had more work to complete after the Virtual Worlds assignment, I was getting a little frustrated at the number of times I was logged out of the world. In her work, *Memory of Frustrating Experiences*, Mentis mentions that the majority of remembered frustrating moments occur with technical difficulties such as system freezes that interrupt the cognitive flow and are out of the user's control (208).

I observed in SL that designers really needed to design for common problems. This is a Microsoft guideline and involves anticipating user errors and technical issues like a slow network. An example of this was evident at the Photosphere. The dioramas were fun places to pose and I kept trying to find the different pose stands. However, I noticed that if the pose was in the back of the Photosphere dioramas (there are poses for peeking out behind props like a tree or cupboard), then standing up meant getting trapped in the back of the diorama. In the Big Bad Wolf diorama, I had to finally exit SL and reenter at my home location. For the Alice in Wonderland diorama, I tried to sit on anything nearby and finally ended up sitting in the tree, then was able to stand and exit. This happened at least three times and I finally paused for the day and decided to return some other time. This behavior is noted by Nahl in *Affective Load and Engagement*, that if an urgent information need is unmet, it cumulates to disengagement or quitting (13).
IBM's interface design guidelines include good context sensitive help. When Sashi Kira and I first arrived in Inworldz, we were met by mentor avatars and immediately received a bald base that allowed us to rez as twins. Each time I logged on there were mentor avatars. They were really helpful and I thought that having real-time assistance was a wonderful idea. I noticed there were not that many people inworld, less than 200 which may be why the mentorship works in Inworldz. One helped Sashi in the newbie store because the hair wouldn't actually go on her avatar's head; it was off to one side. She also helped Sashi with the fit of her shoes.

The mentors led us across the bridge to a store of female freebies (male ones next door) to change avatar appearance. The process of changing appearance resembles SL, only the avatar did seem more primitive than the original avatars I received from SL. I realized in Inworldz what that pie chart is
that SL instructions often have in the documentation. Those instructions should be updated in SL but work for Inworldz.

Data Analysis

Fig. 1 Interface Assessment Journal: Ratings for Tasks of Acquiring Businesswear, Using the Photosphere, Creating a Presentation, and Visiting two Virtual Worlds: Webkinz and Inworldz.
In Figure 1, the area graph shows that my assessment of competence for each task was generally high, and so was my concept of the career utility of the task. I believe that most of the tasks could be useful to any career, not only that of a librarian, although such tasks as presentations and inventory management were perhaps more useful than others. If my perceived competence was high, my frustration and irritation levels were, by comparison, low. In the Photosphere assignment, I couldn't find the singles pose stand that I needed to complete the assignment. My perceived competence level for this task was lower and my frustration and irritation levels correspondingly higher. This was also the week after my new laptop's hard drive stopped working along with my modem (no relation to each other) so my frustration level was highest during this task due to external factors beyond my control.

I believe that the Presentation tasks were rated higher in competence and career utility because I do give presentations in RL, and was most familiar with that task. Nahl, in *Interaction Effects*, found...
that high self-efficacy significantly influences success by counteracting the effects of frustration and irritation (12). Because I was most familiar and comfortable with giving presentations and because Sashi Kira was with me during most of my time inworld when creating the presentation, my competence level was the highest during this task. We discussed different aspects of the presentation, including using the speakeasy for the first time. Isen, in *Positive Affect and Decision Making* concluded that, all else being equal, positive affect tends to promote exploration of new ideas and new ways of looking at things, especially in familiar situations. This can lead to more efficient problem solving (431).

Figure 2 shows the details of each step and the corresponding perceived levels of Competence, Career Utility, Frustration, and Irritation. The other times that my frustration levels were high were the result of technical difficulties such as the missing pose stand in the Photosphere and the tremendous lag in Inworldz. Sashi Kira also accompanied me to those areas or I believe that my competence level might have been lower and my frustration levels even higher than they were. I was reassured that the pose stand was really missing and I noticed that Sashi was having even more difficulties maneuvering in Inworldz than Dawn Greymyst did.

Interaction Design and Evaluation

Although the human-interface design is important when developing programs, they do not necessarily provide for the information needs of the user. This is an essential step, otherwise chances of failure are high. According to Hoekman, the vast majority of software projects fail. The most important thing to know at the beginning of the project is what to build and why (18). There are principles of interaction design that apply to design even outside of technology. Sharp, Rogers, and Preece claim that the first principle is to identify user needs and establish requirements of the user experience and then to create alternative designs that meet those requirements. Warburton included interface evaluation criteria for affordances for education (*Second Life* 421). These include:
• Social interaction

• Visualization and Simulation

• Augmented sense of presence (Avatar)

• Community presence

Social Interaction

In SL, I would rate the ability to interact with others as high as the value of the visual and experiential. Sanchez notes that "It is people, not the content, that is king (8)." Of the five major information seeking behavior categories described by Ostrander, the social aspects are definitely a prominent part of the experience (516). An example of this group experience would be working together to create the Banned Books Week display. For instance, while figuring where to put the posters, I received feedback about floating them above the ground (too low, too high etc). There were four to six of us working at the same time so even while working individually, we also discussed the project as a group and gave each other feedback or made suggestions. Fisher and Naumer researched the notion of the information grounds. Although church, school, and the workplace were among the places under discussion, SL includes similar characteristics as those information grounds in that it provides opportunity for bonding with a diverse range of people in a social setting (101).

When I saw Momo Mellow’s space pod in the Banned Books Week display, I had the idea to have more fantasy rides available, just as there were free costumes available. This entailed finding fantasy rides and experimenting with them to see if they worked properly. My young nieces, nine and eleven, envied me my homework and even took control of the rides one evening, managing to maneuver without my having to explain the settings. We discovered some of the rides didn’t work well (the dragon plowed right into the ground, for instance, so that only a part of one wing and one of my avatar’s limbs was visible above ground). I lost a broomstick and a hover craft, one in the air and one in
the ocean, because both were turbo-powered and we couldn't control the speed or height, but the kids thought it was hilarious instead of stressful. Even though it wasn't a true SL social experience since they were sharing my avatar, it was still an enjoyable social event.

When I visited the Photosphere, I could not figure out where the singles pose stand was located. Because it was part of the assignment, I was concerned that I would not complete it. According to Nahl's model of information reception practices, reception involves a sequence from optimizing to satisficing (Affective Load 5). During this time, I could not find the affordance I needed to complete the assignment so I could not move from optimizing to satisficing activity. What enabled me to reduce stress was that Sashi Kira joined me and pointed out that the pose stand had been present the last time she was at the Photosphere. I knew then that it was not just that I was overlooking it and that was reassuring.

I kept thinking of a work-around and finally used the singles pose in the bathtub to take photos. Finding the poses in the diorama was very entertaining since we didn't know what the poses were. The pouncing pose in the Big Bad Wolf scene was especially fun. We tried the spider web and it was a little exhausting watching the avatars struggle on the web while we were reading instructions and taking pictures. The group poses were probably the most enjoyable activities and we spent the most time with the spider web.
Visualization and Simulation

Certainly, the ability to build what is lost in history or too small, too expensive, or not based in reality is an educator's dream. SL builders have recreated the lost civilization of the Mayans and the Sistine Chapel. I visited the Genome Island and explored the inside of a cell and, together with my niece, toured the Alice in Wonderland region that was designed as an immersive environment for the 2010 movie. Boulos, Hetherington, and Wheeler write about the potential in the medical field where students can practice skills and make mistakes without serious repercussions in SL. Students can gain some experiential learning without the risk of harming patients in RL (240).
Avatars: Augmented Presence

I have been inworld working with Sandy Shitanishi’s avatar, Sashi Kira, quite often since we both go inworld late at night. As a matter of fact, our avatars have worked together more often than Sandy and I have in RL. We worked together on the banned books event, went shopping at Wetherby’s (with Tawky Sabretooth), posed at the Photosphere, and visited another Virtual World together. We also met on the UH Aquaculture roof and worked with the speakeasy to practice our group presentation. Collaborating with another person to create a presentation has been, and probably will be, a common occurrence in our lives. While I have communicated electronically, the visual and chat elements in SL added a new synchronous dimension to the interaction. According to Luo and Kemp, SL is of interest to educators as a venue for group projects (156). I would certainly agree since, with other avatars to work through problems, the time went by quickly although I have noticed that completing assignments in SL can be very time-consuming. The assignments are not usually difficult but time is spent in exploring and
in the uncertainty of figuring out where to go and how to accomplish certain tasks. Doing assignments with a partner helps in not only problem-solving but eases frustration and reduces stress.

Preparing for the presentation with Sashi in SL was pretty successful (although I was not really expecting any disasters). Sashi and I both worked on the outline together; I transcribed the outline into the notes for the speakeasy and Sashi added extra images to illustrate our points (with a speakeasy for the images). During one point while I was busy, Sashi took off to Wetherby's Clothing Store where she purchased a new outfit that she wanted to wear during the presentation. Then during the extended periods of time we individually spent with each aspect of the presentation in RL and SL, I took some snapshots of the avatars in front of the preso-matic turbo presentation builder and uploaded the resulting images to end up with a futuristic collage, reminiscent of standing between double mirrors and seeing into infinity. I thought that if Sashi and I stood in front of this presentation, it would be an effective introduction to the idea of Virtual Worlds.

Dawn and Sashi Kira in Infinity Pose
Community Presence

When I was preparing for the Banned Books Week party, my daughter (also a librarian) noticed me, with my nieces, testing rides in the UH Sandbox. She had an avatar from about four years back and she thought she would try it out again now that there appeared to be more things to do and more sophisticated technologies. I sent her a teleport to the Community Virtual Library and she flew around to look at the posters. Afterwards we tested the Pegasus rides and a 6-seater magic carpet that our avatars could both sit on together. Her avatar looked a little primitive so I waited for her whenever she got the urge to change her appearance. She is a children's librarian so of course, after we spotted it, we landed on Imagination Island to see the sights. There were rooms with books on myths, fables, and fairy tales and décor to match, even an underwater garden library. It was strange exploring a knowledge area with my daughter, since we were both so busy that I have not had her company for quite a while. Fisher and Naumer discuss the fact that most people bond in their information grounds over shared common interests (105). Certainly the fact that we are both librarians influenced our decision on where to explore in SL. Even with my newbie knowledge I was also able to assist when she was updating her primitive avatar and it was nice to be knowledgeable enough to pass along some advice.

Even though other avatars are not acquainted with the real me, some of the values of RL spill over into SL. One of the details I noticed when I was visiting Big Daddy's bar was that I had my "librarian" tag on and, strangely enough, that felt a little awkward. I couldn't even comprehend some of the group name tags so I wasn't sure if they were acronyms or just strings of symbols and characters or really were group tags. They didn't look like any familiar foreign language.

Conclusion

I wish to conclude with some speculation on the future of libraries in SL. I noticed that the libraries I visited inworld were like ghost towns. Some kind of guide or guided tour could be of great
assistance in helping people understand, not only what is available in SL, but also what libraries are about. The tour could be like the blue butterfly of Mexico, or a balloon ride like the one at the Community Virtual Library, where you wouldn't actually be expecting human responses so wouldn't be disappointed if you made a query which was not answered. Taking advantage of the virtual reality educational experience in SL (like the Sistine Chapel or the synchronous panel discussions) is practically a requirement for this type of library; otherwise we may as well stick to RL libraries. And where else would you have floating auditorium seats that defy gravity and an underwater classroom? I missed part of one class period due to car trouble but was able to participate due to the class meeting in SL. According to Luo and Kemp, communicating with the geographically dispersed is an advantage to educators and students (156).

The panel discussions are also wonderful instruction tools in that people from anywhere can join and incorporate the social, technological, and multicultural aspects that increase the richness of the learning experience. It could also make people more accepting and inclusive and increase the enjoyment factor because avatars are not all human in appearance (e.g., some have tails and some have metallic skin) and because there were experiences that were like, yet unlike, real life ones. With SL seminars, we could support longitudinal learning like this assessment study. SL Learning communities have and still can change the context of learning to become immersive, experiential models (JISC 36).
Discussion Panel with Tiger (Tawky Sabretooth) as Co-presenter


Web. 20 Nov. 2010.


