

Breaking Rules, Building Virtual Bridges: Using Second Life for Information Awareness in the Enterprise

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Second Life, an online 3D environment, continues to grow as an important learning and communications channel for corporate and academic institutions. In this paper, we discuss how Sun Microsystems, a leading high-technology company, started using Second Life as a marketing tool and how Sun's usage of Second Life has grown. We discuss how Digital Libraries & Research (DL&R), the information organization/library within Sun Microsystems, has been involved in this process and how DL&R approached the unique challenges and opportunities of utilizing Second Life as a training and information environment. We specifically look at our first in-world learning sessions, offered in Fall of 2007.

The Growth of Second Life and Other Social Networking Tool Usage at Sun Microsystems

A UNIQUE WORK ENVIRONMENT

Sun Microsystems is a leading high-technology company, started in 1982 by four Stanford graduates. Sun competes with companies like IBM and Hewlett-Packard, as well as many other smaller technology firms.

Throughout its existence, Sun has created a brand and reputation for itself as being an innovative company, providing leading-edge technology. Sun is also unique in that, for the past several years, it has grown into a highly-distributed company. While Sun has been a global company for many years, only in the past several years has Sun actively encouraged its employees to work flexibly. Flexible work includes a growing percentage of Sun employees who are "home-assigned"; in other words, they work most, if not all, of their time from a home office.

With so many employees in literally thousands of locations, the ability for employees to connect with each other and the capability to share information effectively become paramount. In addition to all the electronic resources and services DL&R has provided over the years, social networking tools provide another layer of connectivity and the ability to share information.

SOCIAL NETWORKING TOOLS

Because of its history of innovation, the widespread physical distribution of its employees, and a large engineering population that enjoys experimenting with new tools and gadgets, it's common to see mention of new "bleeding edge" tools in email discussions and internal articles. The DL&R team works closely with the engineering population and tracks these kinds of tools as well, especially those that may have potential for information applications. Sun has already adopted and has been informally using tools such as wikis, blogs, RSS feeds and other social networking tools for several years.

Second Life (SL) began to show up in discussions a couple of years ago, and the DL&R team began tracking SL as well. By the end of 2006, the DL&R team members all had avatars in SL and were beginning to explore this virtual world.

Digital Libraries & Research Dives into Second Life

DIGITAL LIBRARIES & RESEARCH HISTORY

Digital Libraries & Research was formerly known as SunLibrary for many years prior to July 2006. SunLibrary was established in the 1980s as Sun's central library and an a central access point for third-party technical, market and business information. As previously mentioned, SunLibrary (and subsequently DL&R) has made a practice of staying on the leading edge of technology developments, especially those that may have potential for information applications. Focusing on this is especially important because of the high degree of technological "savvy" of Sun employees. We know our audiences are experimenting with and adopting these leading edge tools all the time. Subsequently, it's important for us as a group to be aware of what our employees are using, and to be able to adopt these tools and adapt to ways that we might possibly utilize them to deliver information.

In January of 2006, Sun acquired a large storage company of several thousand employees. Though the DL&R team had been providing "on-demand" training on our resources, both in person and virtually, for several years, we took this opportunity to establish regularly-scheduled virtual training sessions. These sessions typically cover DL&R resources, search methodologies, and other information and resource topics. These sessions were (and continue to be) offered virtually via WebEx web conference software, so that anyone, anywhere could attend the sessions. Our decision to offer a learning experience in Second Life was a logical extension of the establishment of these regular, web-based training modules.

The DL&R team was getting involved in virtual worlds in other ways, too. In November 2006, the team was involved in some initial brainstorming around a virtual environment to be created by Sun Labs, the research & development organization at Sun. We worked with that organization to discuss what a virtual world with a focus on collaboration, education and information services would provide. Eventually, this Sun Labs project evolved into what is now known as [Project Wonderland](#), a virtual environment that provides more business-focused features.

MAKING THE LEAP INTO SECOND LIFE

Though Sun employees had already been exploring social networking tools, including Second Life, for a year or two, the use of these tools and technologies began to really take off on a large scale in July of 2007. Sun's internal employee communications group, formerly known as GECO (Global

Employee Communications Organization), changed their organizational acronym to GECCO (Global Employee Communications and Communities Organization), under the directive of Sun's CEO, Jonathan Schwartz. The organization was tasked with looking at a variety of social networking tools to as a means to build communities within Sun's employee population and with Sun's customers, partners and developer communities.

DL&R had already been tracking these kinds of technologies for several months. GECCO turned to us to get up-to-speed on some of these technologies. As a result, we conducted several tailored learning sessions for the GECCO group, each addressing a different social networking tool: wikis, blogs, micro-blogs (like Twitter), virtual worlds, RSS, etc. In each session, we would talk about the tool, discuss common uses, and provide information on which tools were available at Sun.

Our ideas around a first venture into Second Life consisted of two parts:

- A webinar introduction to Second Life, which would provide an overview of virtual worlds, the logistical information for getting set up and moving around in SL, and information on how to register as a Sun avatar, so that people could get into the Sun restricted areas in SL; and
- An in-world meeting in Second Life. These in-world sessions would serve two purposes: to simply get people into SL so that they could experience the world, and to provide an overview of DL&R resources in this new setting.

Due to Sun's internal technology environment, SL was (and continues to be) a special challenge for a couple of reasons:

- Though many Sun employees work remotely from their home systems, a majority of Sun employees use an internal, networked desktop system for their work. The nature of this system is such that the SL software cannot be downloaded to an individual system; indeed, there is no "individual" system on the network. Therefore, these employees cannot run SL from their work desktop.
- This internal network is, like many organizations, behind a heavily-protected firewall, so even if an employee downloaded the SL software onto her laptop (outside of the networked desktop system), she would still not be able to connect to the SL Servers if she was working through the network.

Despite these obstacles, we decided that SL provided a unique opportunity to reach out to our employee audience. We knew that many Sun employees were already in SL. We also knew there was a gap: people wanted to get into SL, but needed some orientation to the environment and some assistance in actually getting into it.

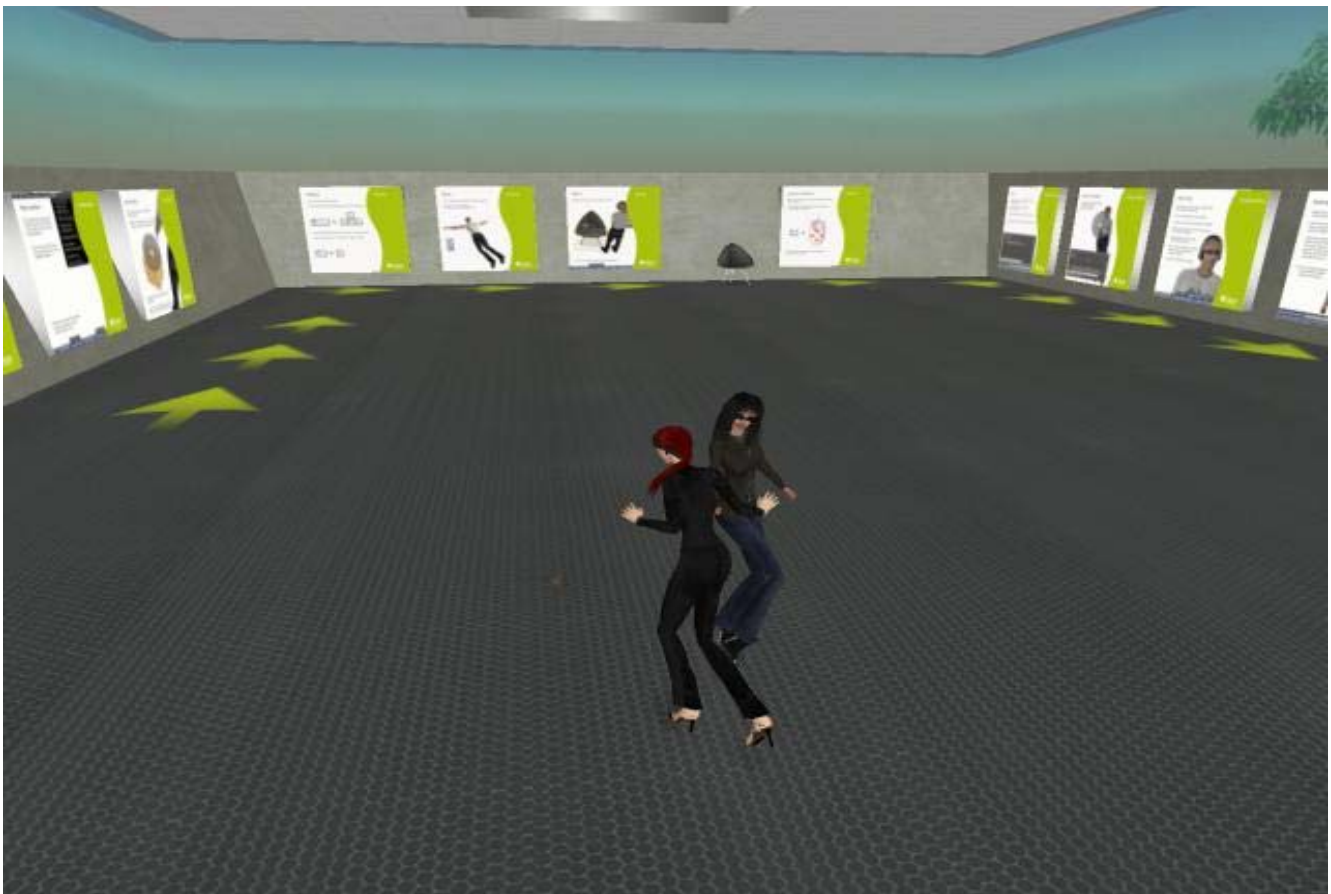
We scheduled our SL two-part sessions for Fall of 2007. At about the same time, we started getting involved with our global internal conference at Sun, the Sun Customer Engineering Conference (or CEC). This physical conference typically attracts several thousand Sun engineers. In 2007, the event was to be held in Las Vegas, Nevada, USA. We learned that some other Sun employees were planning on building a Sun space in SL for CEC, including a "virtual Las Vegas", with replicas of the Luxor and Paris hotels. We partnered with this group and offered our SL two-part sessions as a way to help get Sun employees into SL for CEC as well.

While the CEC group was doing the in-world “build” for the conference, we were focusing on figuring out how to train large amounts of people on SL, in addition to leading the communications on the event's SL component and how to participate via SL. We saw this as another opportunity to encourage employees to get into SL and begin to explore how they could share information and create communities in a virtual world.

Since we had been doing WebEx webinars for a while, this was nothing new to us. However, our approach would have to be a little different. Rather than going over resources we provide, the webinars would need to provide all the practical questions someone might run into in getting set up in SL: how do I move around? How do I get to the Sun space? Can I run SL behind the firewall?

Needless to say, we had to become more experienced in using SL ourselves. Getting more acquainted with SL meant that we ran into the same problems that our attendees would be experiencing as well, and we could share those learnings.

The first part of the training was relatively easy. In addition to providing participants with the logistical information to get set up with an avatar in SL, we were able to leverage a new Sun employee orientation area, created in SL by our colleagues building out the CEC spaces. This is a dedicated area, accessible only by Sun employees, where "newbies" to SL can take their time and get oriented with SL in a safe environment - and pick up some Sun-logo clothing as well.



The Sun employee orientation area in Second Life

The primary challenge facing us was figuring out the the logistics of the second part of our training: getting a bunch of new SL users all together, in one secure Sun employee place in SL, all at the same time.

This is easier said than done. Spaces and rooms in SL are similar to physical spaces: they have space limitations. In other words, only a certain number of avatars can fit into a space in SL. With our first group, luckily, we had a small enough group who registered for the session that we could meet in one place. In the first session, we gave the participants the information to get an avatar, and to register that avatar as a Sun avatar. What this meant in practical terms was that, by “registering” their avatar on an internal site, we added them to the Sun Employee group within Second Life. This gave us the ability to 1) send informational messages to the entire Sun Employee group (which was relatively small at the time), and 2) to attach a landmark to the messages. In effect, we could send a “link” to the participants so that they could all teleport to the same space at the appointed time.

The main mode of communication within SL, up until a year or so ago, has been text chat. For our in-world session, we planned on creating a written script which we could copy and paste into the group chat window during the session. We also decided to take advantage of the relatively new voice chat capability in SL. As the presenter, I was able to provide an audio commentary to the slides, and my colleague Christy provided the text to accompany the slides.



Steven Source (Scott Brown) presenting in Second Life, November 2007

Fortunately, we had others within Sun who were willing to provide their technical expertise and

their in-world assistance for our DL&R session. The main SL lead at Sun, Fiona Gallagher, provided us with the support to post our slides onto a “screen” in our presentation room, and we were able to control the slides during the session. A couple of Sun SL mentors also were in-world before and during the session, to help people find the room and to help field questions before and during the session.

OUTCOMES OF OUR FIRST VENTURE

The in-world session felt very much like an in-person presentation with slides. What was unique for us was that it *felt* like a physical setting. I could look around the room during the session. People could come and go into the space, and ask questions through the chat utility. We provided answers both through the voice chat and the text chat. After the presentation, we had the ability to answer questions as well. When the session broke up, some people stayed afterwards to stand around and chat.

A comment we received after the session, from someone who was fairly new to SL, echoed this feeling. "I felt like I was in the room. It was amazing to be sitting next to someone while watching the speaker!" I agreed; there was something definitely *physical* about being in a virtual room with other avatars.



DL&R presentation and audience in Second Life, November 2007

The Expansion of Second Life Usage Within Sun

Since our first session, Second Life usage at Sun has exploded, despite the technical barriers that remain within the company. There are over 2500 Sun employee avatars registered and seven Sun islands within SL, and the employee avatar numbers are growing steadily. Some of the Sun islands are open to the public, and are used to showcase Sun products and initiatives (simply search for “Sun Microsystems” when you’re in SL if you’d like to take a look at some of these). Other island are restricted to Sun employees, for training and events such as we conducted.

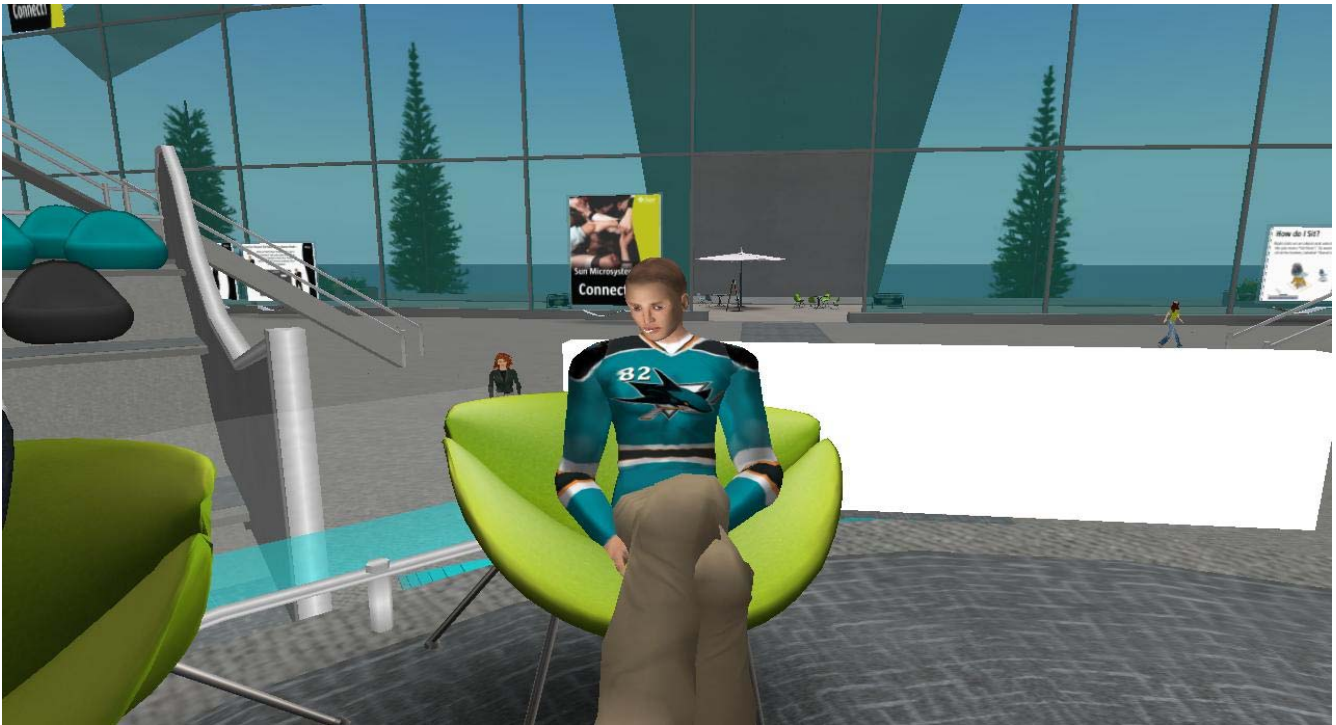
The CEC event in October 2007 was the largest SL event for Sun to that point. On April 29, 2008, Sun employees were invited to the first-ever Sun Open House in Second Life. This Open House was to become the largest SL event for Sun yet.



The main keynote hall in Sun's Second Life space, April 2008

This event was even more unique for a variety of reasons:

- Employees from Sun’s recent acquisitions - MySQL, Vaau and innotek - were invited to be a part of the Open House as well.
- Sun SL mentors helped create avatars for nearly all of Sun’s chief executives, including CEO Jonathan Schwartz, HR Senior VP Bill MacGowan, Chief Learning Office Karie Willyerd, and many others. All of the executives gathered in a room in Menlo Park, California, to give keynote speeches in SL. Audio streams of the executives' talks were available in the room; employees could ask questions via text, and a moderator sitting with the executives was able to repeat the questions to the executives. This gave the keynotes a truly physical and interactive feeling.



Sun Chairman Scott McNealy during his April 29 keynote

- Several groups within Sun, including DL&R, had "booths" near the keynote spaces, which were staffed by Sun employee avatars. In addition to being able to interact with a "live" person, attendees could also get a notecard from the booths with a brief description of the services available from that group.



DL&R booth at Sun Open House, April 2008

- Once again, we provided our "part 1" training, the logistics of getting set up in SL, prior to the event. These learning sessions attracted the most registrants we've ever had – well over 200 people registered for the webinar, and untold others accessed the online information on getting set up in SL. We also had an in-world event prior to the Open House, to get people into SL for the first time.



Sun employees at DL&R training in the Sun employee orientation space, April 2008



Violet Portola (Christy Confetti-Higgins) leading the in-world orientation, April 2008

This Open House served as a landmark event for Sun employee participation in SL. Due to its enormous success, we will continue to offer both parts of our introductory sessions on a monthly basis. We also intend to become more involved in in-world training. While several Sun SL mentors offer ongoing classes in-world – 101a on moving around in-world, 101b on dressing your avatar, 102 and 103 on more advanced topics – we are looking at conducting ongoing in-world tours of the Sun spaces.



Sun Open House after-hours dance party at Club Java, April 2008

Just since October 2007 and our first foray into training within SL, we've started to think more creatively around how to use SL's unique setting and features to our advantage. Rather than have participants sit in a room and watch a presenter, we're looking at ways for the participant experience to be more interactive. Already, Sun has held two Sun Author Talks in-world, where the author's avatar is available to chat about his or her book. We think there are opportunities to provide interactive sessions on finding information, and to provide tours of other SL spaces that might be of interest to Sun employees (for example, a tour of the IBM spaces, a Sun competitor, within SL). Thinking creatively about how we can leverage the features and content within SL will be key to providing unique services to Sun employees and raising DL&R visibility within Sun.

We are also looking at interactive games and immersive experiences as a way to leverage the virtual world environment for Sun employee learning. Two examples are "quest" games created for the April 2008 Open House. In one, the Sun Java mascot, "Duke", helps employees learn about the SL Sun islands by providing "automated" answers to questions. A game called Phrase Invaders was also created for the event. Phrase Invaders is like the classic arcade game "Space Invaders", but instead of rockets, you type in (as fast as you can) Sun words you see on the game – a fun way to learn Sun's products, values and culture. DL&R was able to hire a graduate intern from the San Jose State University SLIS program to create these games and to provide other in-world support.

In general, we expect that use of SL – or other virtual worlds - as a “place” for dispersed employees to collaborate and learn will continue to grow. Not only will there continue to be opportunities to provide learning experiences within SL, but there will continue to be a need to help people make the entry into SL and other virtual environments.

Learnings

While our learnings in Second Life are ongoing, there are several things we've learned during our venture into SL.

- **Think differently about learning in Second Life.** SL is not just a replication of the physical world. Yes, it generally looks like a physical space, and can certainly be used that way. If you use it strictly as a physical space, however, you will quickly lose your audience. Take advantage of the “wow” factor within SL. Explore other areas of SL and attend in-world events to see what others are doing.
- **Think differently about what you can provide.** Is this traditional “librarianship”? Not by a long shot. Certainly, there are elements of training, information sharing and providing assistance, but it's easy to feel that getting involved in SL falls outside of what we “should” be providing.

But why shouldn't we be providing these kinds of services? If virtual environments such as Second Life are going to become more ubiquitous - and analyst firms like Gartner and Forrester predict huge growth in the number of people getting involved in virtual worlds, at least in a business setting - it's up to us as information professionals to, at a minimum, be familiar with these environments. Ideally, we will be on the leading edge, helping our clients adopt these technologies and using them to keep our clients more well-informed. A growing part of our client base is in virtual worlds; why shouldn't we be serving them where they are?

- **Partnering is essential for success.** As with any collaborative effort, the more people helping you out, the easier it is for you to achieve your goals. You don't have to do everything, and often times you simply can't in SL. We relied on other SL participants who had SL building skills, experience, and simply the willingness to help us out. Because virtual worlds are social tools and environments, collaboration is natural. This is another example of how DL&R partners with internal Sun teams (in this case, the Sun in SL team) to embed and integrate our services and values – people, content, connections. Don't be afraid to ask your partners to help out.
- **Events are a great entry-point into Second Life.** If your clients go in to SL by themselves for the first time, the likelihood of them experiencing the unique social aspects of an event in SL is slim. If you can create an event, or leverage a larger event that is being planned in SL, your attendees will have a much richer experience, and will be more likely to go back into SL and participate in future SL events. The April 29th Sun Open House was a phenomenal opportunity for employees from all over Sun to connect, and for DL&R to connect with Sun employees.
- **Keep in mind that this technology is still evolving; you and your attendees *will* run into technical issues.** The question isn't "if" you'll run into technical issues, it's "when" and "how often". On the positive side, the technology is getting better literally every day. However, you have to be prepared to trouble-shoot for your clients and participants. Know your virtual world well enough to help those who are new and entering for the first time. Encourage them to keep coming back, despite technical glitches.
- **Effective participation in Second Life requires even more of a team effort from your group.** Though I regularly do my own physical presentations and webinars entirely by myself, there is no way I would ever attempt to run a training or event by myself in SL. In addition to

the technology issues you will likely encounter, chatting, communicating and moving around in SL can be a chaotic experience when you're working with a group. With any SL event, we always plan to have at least a few SL “mentors” in-world and nearby, to work with those that need help, to make sure participants aren't getting lost, etc.

As mentioned above, we will continue to provide the logistical training to help people sign up for SL and get into the virtual world. What's really exciting is that our activities and experimentation in-world will continue, and in fact become more and more successful. Now that more Sun employees have entered into SL and are willing to go in again, our potential employee audience within SL is much greater. More employees in-world means more information services we can offer to our key audience – Sun employees.