

Healthcare Support Groups in Online Virtual Worlds

Introduction to the Second Life Groups and Tools.

John Norris
Second Life: Knoh Oh
john-norris.net

October 1, 2009
v5

Abstract:

This paper is intended for those who know a bit about doing healthcare support groups online, but have not explored doing it within a virtual world. Using Linden Lab's virtual world Second Life as an example, we take a brief, non-technical, look at what a virtual world is. We see how it works, what is its culture, and its tools... all from the point of view running a healthcare support group. This paper is a take-away component to a live demonstration of Second Life.

Introduction:

I entered Second Life to visit the virtual world component of a popular online health forum. Instead of the typical bulletin board, I found myself wandering the paths of a small island at dusk. I walked past waterfalls, through gardens of flowers, down into valleys, and up into the hills. I stopped at an Asian inspired gazebo to watch the sun set over the ocean. It wasn't long after dark when I saw a figure coming up the path. It was a small, elfish like creature. We welcomed each other, and she sat upon a pillow besides me. She said she often walks the paths at night when she had trouble sleeping, and thus our conversation began-

This paper is intended for those who run healthcare support groups. It is meant to introduce some of the general benefits and problems that virtual worlds have for healthcare support groups. I will use Linden Lab's Second Life as my primary example, but I think many general concepts will be applicable to other "worlds." I will assume some knowledge of the ins-and-outs of "regular" online support groups such as message boards, forums, IRC, email lists, and Instant Messaging. I do not intend this paper to be a substitute for a general introduction to Second Life.

It is also not in the scope of this paper to address whether or not virtual worlds are effective places for health therapies or treatment to occur. There are an ever increasing number of papers covering this topic, and I believe they show that virtual worlds can be a positive environment.¹ I will assume that virtual worlds offer a supportive place for healthcare groups to meet.

What is an online virtual world?

While this is a big question for some, but without getting too meta-physical, I'll go with the idea that an online virtual world includes three things:²

- 1) It is a common area that people can network into and share.
A virtual world shares some of the advantages and disadvantages that "regular" online groups have. It also has unique benefits that go along with being immersed in a world. However, because of the extra overhead of graphics, sound, and computation it may require a high speed connection and a more powerful computer. This may preclude some from joining.
- 2) It exists whether people are logged in or not.
There is no pause button. Time passes even when no one is there. When you go away from the virtual world, things may change. Individuals can visit and find things left by others. Groups can meet and leave without a trace. Serendipitous events can take place.
- 3) People are represented by avatars allowing them to interact with the environment of the virtual world and each other.
This may allow for a powerful and intimate association between the real life person and their avatar. Avatars can more completely mirror one's personality or be used as a tool to explore one's sense of self. Environments can elicit different responses and be used to focus the intellect and emotions.

Virtual Worlds represent a different way of working on the Internet, and they have a promising future.³ While it may be too early for some, it is not too early to see what is currently happening and start to understand one's place.

There are close to two hundred online virtual worlds.⁴ Some are geared towards gaming adults, such as World of Warcraft and others more towards children, such as Club Penguin. I will be using Linden Lab's Second Life as an example of a virtual world with good tools to use for support groups. While not as popular as World of Warcraft (7.5 million active users) or Club Penguin(4 million active users), Second Life (500,000 active users) is still one of the top ten "worlds".^{5,6} Second Life has some unique features and tools that help groups in general.

What is Second Life?

Second Life is a type of virtual world. It has its own world and avatars. One is not able to take the same avatar and travel between Club Penguin, World of Warcraft, and Second Life...at least not yet. A Second Life world runs on a server, similar to a web site, and members visit the world using a Second Life application, somewhat similar to a web browser. A Second Life like world, a grid, can be run by almost anyone. Server software is available for free.⁵ I have even run it on my own computer.⁸ However, Second Life was originally created by Linden Labs, and they run the most popular grid. Running an up-to-date, always-on grid is no easy matter and there are several other companies that run them. Running one's own grid allows for more privacy, and control over who logs in, but may be out

of most support group's resources. However, I do mention it as it may be an important factor to some. Being able to get the same Second Life like services from a number of companies may encourage competition, innovation, as well as stability for the market in the long term. However, at this time, the non-Linden lab grids may have less functionality, including the Groups' features.

Linden Lab offers two grids, one is for those 18 years and older and the other, the "teen grid"⁹, for those 13 to 17. The teen grid allows selected adults to log into limited areas, mostly for education. The teen grid's community standards are oriented towards "PG" content.¹⁰ Some issues that may come up in a healthcare environment may be beyond that and would not be allowed on the teen grid. Other companies may offer Second Life like grids without age limitations.

Currently, people are not able to have their unique avatars on more than one grid. One must register a new avatar with each grid separately. Items accrued in one grid can not be brought to another. This may be changing in the future with interoperable virtual worlds.¹¹

Second Life is not a game. There is no winning nor losing. There are no levels, nor goals intrinsic to the world itself. (For example, one cannot be killed in Second Life, merely teleported back to their 'Home base', nor can one accrue additional powers by completing tasks.) It is merely a space where one can create and do, generally, what one likes. Thus, groups meeting within Second Life will not find their member's experience secondary to a plot or game play. The group can tailor their environment to what best suits them.

Further, there are no rules or roles besides some general community standards spelled out in the terms of service for Linden Lab.¹² Linden Lab reserves the right to warn, suspend, and even banish people from their grid. Linden Lab is able to track what is happening on their grid in order to help determine transgressions. This ability *may* include the logging of in-world conversations. You should not assume your conversations or meetings are private from others, nor the company running the server (Linden Lab). If this is a concern, is it possible to use other means for conversation, such as the telephone, yet have the avatars interact in-world. There are now third party clients that include authentication and encryption which can allow for more private communication.^{12.1} Additional mores, etiquette, and cultures are created by the people in the virtual world.

For those concerned with privacy, Linden Lab states in their Community Standards¹³ that they do not tolerate avatars eavesdropping on each other's conversations, that they expect residents to respect each other's need for privacy. Further, avatars should not reveal more about another avatar than what that avatar has made public. For example, one should not reveal another's gender, or real world location if they have not made it public themselves. While this gives some sort of protection, the penalty of being not allowed to log back into Second Life may not be great enough for some.

Because there are few rules and at least a veil of anonymity, there tends to be a wider variety of activity within Second Life than is seen in public spaces. For some, these might include situations that are psychological triggers which may be more harmful than helpful. Some of these situations may be limited by keeping to particular regions of the world. A thorough understanding of these issues would be warranted for some individuals.

This variety is also an opportunity that may be freeing for others who are otherwise restricted physically, mentally, or culturally. The anonymity may also allow one to be more apt to share within a

group. People may be more able to explore parts of themselves that are not easy to represent and to access. It may also lead to less desirable activities, as we will note.

Besides people wanting to keep their first life identities confidential, some prefer to do the same with their avatars. Some do not want others associating one's avatar with healthcare groups that may have a stigma attached to them. Groups can be private, so that they will not show up in search nor linked to an individual. Avatars can also be set up so that their details are not accessible. And some people are very careful with whom their avatars are seen associating with.

Second Life is free. There is no charge from Linden Lab, currently, to use the Second Life application and log onto their grid. You can enjoy events, join groups, build objects, and participate in the world without having to pay Linden Lab. However, if you want to own land, you will need to become a premium member for \$9.95 a month.¹⁴ Most of the avatars you will meet, ~85 percent, are not premium members.¹⁵ Many/most members of support groups will not find it necessary to have a premium account.

However, things within Second Life may not be free. While there are many things in Second Life that won't cost you a cent, but other things will cost you "Lindens". "Lindens" are the currency within Second Life and are used to purchase goods and services. For example, there are numerous stores within Second Life that sell clothes and you would use your Lindens to buy them. Linden Lab runs a currency exchange for their grid where you can use a credit card to purchase Lindens for your avatar's account.¹⁵ You can also convert your Lindens back into US dollars. For example, creating an official group within Second Life will cost you 100 Lindens, currently about .50 \$US.¹⁷ You can also charge people to join your group and have dues. While there are a lot of "freebies" that you might use for your group, including multimedia educational tools, you may want to buy some items that you are not able to make yourself. Importing files from your computer into Second Life, such as pictures and presentations, will cost you Lindens. Many members of support groups may find they do not need to spend any Lindens at all in order to participate.

Second Life does take a good bit of computing power as well as a high speed Internet connection. Some older computers may not be able to handle the requirements and some connections to the Internet may be frustratingly slow. Thus, some people who might like to use Second Life, may not be able to. In some situations it is possible for an organization to have computers and connectivity available to their clients. There are also simplified ways of participating within a world such as Second Life. AjaxLife is an experimental project that can run on slower machines. One can use it to converse with text, but there is no sights nor sounds. Another option is getting the text portion via IRC with services such as QuickFox.⁽²⁹⁾ There are also attempts to allow access via one's cell phone.¹⁸ Other online virtual worlds with lower requirements may be an option for some.

Another possible barrier to participation is that Second Life may be a fairly steep learning curve for some people. While people may find the basics easy enough to belong to a support group, it will probably take a bit of time. There are orientation areas, mentors, and support material, but much of this may take some practice before one is comfortable. Some groups have opted to have pre-made avatars that are already situated in the meeting space, and people merely log in as them. This is a quick remedy, but may cause issues if the avatar is shared among numerous people. Some groups, such as Virtual Ability¹⁹, exist to help those with disabilities, cognitive and physical, access virtual worlds. Support groups can help their new members learn the ropes. There may be a significant investment in

time and effort to learn Second Life besides the time getting the benefits of the support group.

Cultural Notes

Second Life is multinational as well as multicultural. The largest group of people are from the U.S. but amount to just 39% of the total. The average age of the people tends towards 40 and almost 60% of the users are male.²⁰ However, it is difficult to further categorize people within Second Life as there are many different "sub-cultures" represented in Second Life. Each sub-culture may have a distinct approach to the virtual world, and some people may belong to several. There are numerous sub-cultures, but some include "Furries" who look like human/animals²¹, "Tinies" that are avatars of very small stature²², and "Medical Role Players", who pretend to be members of the medical community or their patients²³. All of them have "healthcare" needs that have been addressed in Second Life. One may need to be treat avatars carefully, as their backgrounds and choices may be quite different.

This also means that not everyone is who they say they are. Verifying medical credentials of possible support people will probably need to be done outside of the virtual world. Differentiating actual patients from those merely looking for attention may also be difficult. However, if one's identity is easily verified, there may be a corresponding loss of privacy and the benefits of anonymity.

As with email, and other forms of communication, Second Life does not fully convey the subtle emotional clues people may need to fully understand each other. While the use of gestures, voice, and appearance may go further than other online communication, caution is warranted.

Many areas in Second Life are open to the public. One may encounter a wonderful variety of people there, but also those who do not live up to the terms of service and who may be just plain mean and want to cause your group grief, or worse. If one is having a group meeting in a public area, it is possible that the curious, "griefers", or just random strangers may come across your group. There are also cases where unwelcome people actively seek out certain groups in order to disrupt them. It does not seem to be an issue with all groups. However, it should still be a concern.

One may notice that many places in Second Life are empty. There has been much discussion about this. My take on this is that because it fairly cheap/free to make stuff compared to actually being inworld, there is more stuff than people. (Not an eloquent thought, but it works for me!)

Something else you may notice is that Second Life has the feel of an older computer game. The graphics and movements are courser than one has come to expect from a modern online game...and it crashes. I believe part of this is because Second Life does not use a narrow pallet in the creation of its worlds. Because users can create such a wide variety of objects capable of doing numerous things, and decorate their surfaces with just about anything, that causes a tremendous overhead on the whole process. Simplification helps mitigate this. Second Life also has experienced tremendous growth, couple that with adding new features to stay ahead of the competition, and the system ends up having more crashes than a less dynamically developed application. Older members of Second Life tend to shrug some of that off, but Linden Labs is actively working on making their system more reliable.²⁴ At this time Second Life is fairly reliable, but one should make arrangements if one is not able to log in, crashes during a meeting, or certain regions of the world are not accessible.

A Variety of Groups and Members

The history of support groups online is long and speaks to the obvious need. In Second Life the ease of creating and joining a group seems to have facilitated a huge number of them. In the Healthcare support area there are close to two hundred at this time. One can look up many groups using the Second Life search feature within Second life, or at Linden Lab's Second Life website. Further, others have stepped in to help people find healthcare support groups. One of the largest compendiums of such Second Life groups can be found at SLHealthy (slhealthy.wetpaint.com). It is a wiki that currently lists about 300 groups or areas concerned with healthcare.

Within Second Life one can already find groups belonging to such major organizations as The American Cancer Society and Alcoholics Anonymous. Some offer support and some also use Second Life to help raise money and awareness. The American Cancer Society raised over \$210,000.00 US dollars during their 2008 Relay for Life within Second Life.²⁵ Most groups are much smaller, and less ambitious. There are also a number of healthcare educational groups, mostly related to particular universities.

To get an idea of what are the more popular healthcare support groups in Second Life. The following is a list of those with over 100 members.²⁶ Details are taken from the group's online information or their charter in Second Life.

Support for Healing -- 899 members.

Begun as an online forum for mental health issues in 2004, Support for Healing added their own island in Second Life. The group offers several peer-to-peer meetings on different topics during the week. www.supportforhealing.com

Transgender Resource Center -- 845 members.

Providing support and resources for those looking into gender identity issues, the TRC creates an environment so that people may better address these issues in their own lives as well. sltrc.pbwiki.com

Wheelies -- 565 members.

Wheelies is a disabilities themed nightclub in Second Life. The group gets together for various dance parties at the club. simonstevens.com/wcblog

Depression Support Group -- 427 members.

Based on the online forum Support for Healing (see above) this group is for those "suffering with depression, anxiety or related illnesses." They offer regular meetings and a place to visit.

Dream Travelers - 258 members.

Associated with the online forum BrainTalk, the Dream Travelers group provides a safe, and

highly creative space, for those dealing with stroke as well as Asperger's Syndrome. They offer a sandbox in which to build things within Second Life, and hold regular contests there. They also host the annual Dreams Fair for health related non-profits and others. www.slstroke.com

SL's Cancer Survivors -- 210 members.

They hold regular meetings as well as being an important part of the American Cancer Societies' annual Relay for Life within Second Life. poppyzabelin.blogspot.com

Autistic Liberation Front -- 207 members.

Part of the online project Autistics.org. They are working to make their voice heard as well as connect autistic people to each other and the services they need. www.autistics.org

SL Deaf Underground -- 162 members.

For those interested in American Sign Language as well as deaf culture.

Aspies for Freedom -- 147 members.

Associated with the online forum started in 2004, the Second Life group began in 2006. It is working towards building the autism culture, strengthening rights, and creating a community. www.aspiesforfreedom.com

Asperger Awareness -- 131 members.

A group to create an awareness for Aspergers Syndrome.

Autistic -- 118 members.

A group for those who are autistic or know someone who is autistic, to get together for friendship and support.

AICR (Association for International Cancer Research) -- 126 members.

AICR's funds cancer research and uses Second Life as part of their effort to help their supporters interact with each other and keep up on the organization's activities. Perhaps not strictly a healthcare "support" group, but an example of the variety possible... www.aicr.org.uk/InteractwithAICR.stm

Multiple Sclerosis Help and Support -- 115 members

A group offering help and support for those with MS. This group has weekly meetings.

Deaf Community in Second Life -- 111 members.

Encompassing a wide variety of deaf issues and relationships, this group is helping establish a deaf-related area within Second life that will include residences, stores, and a museum.

Depression 24/7 Helpline -- 111 members.

A self-help group for those with mental health issues. Participants focus on answering each others instant messages at anytime.

Autism Society of America -- 101 members

Part of the larger ASA, the Second Life group has weekly meetings at it's own center. It is also involved in fund raising activities.

Further, Second Life has a group dedicated to helping healthcare support groups leaders, the Health Support Coalition.

An excellent overview and case analysis of a Second Life cancer support group has been done by Poppy Zabelin, who runs the SL Cancer Survivors group.²⁷

Second Life's In-World Tools (In Brief)

Move

The use of the keyboard for walking, running, flying, and teleporting, is best left to a demonstration. The first three allow for local mobility. Teleportation allows one to go great distances "instantly" or sent to an exact location.

One can select various gestures to have their avatar move and make noise. This can allow for simple things like clapping, crying, or shrugging as well as more complex actions. It also allows for better emotional communication as well as helping more fully immerse the person in the virtual world.

More sophisticated movements, such as dancing, can be done by a variety of means. There seems to be no lack of types of movement available for free, or at a price.

Appearance

One can change their avatar's body in a many ways... taking on the appearance of just about any object or being. One can adorn themselves with different clothes and textures. Avatar's can be easily customized to express one's individuality, and can be changed to something else almost instantly. One can readily change oneself to mirror one's mood and desires. This helps people explore different aspects of themselves and others. A support leader may decide on a professional look, or something informal and fun, depending on the type of meeting they are running.

Build

Another in-world aspect best left to a demonstration, but suffice it to say avatars create things in their virtual world. These objects can be further enhanced by scripting, that allows the objects to do things. For example, one might create an electric wheel chair that moves, or a talking glucose meter. Just about all that you see in Second Life was created by avatars in-world.

Communicate

There are many ways to communicate in Second Life. Here's a brief rundown of some common ones and their uses:

Text Chat: Similar to IRC chat, one types and others receive the text. Text Chat is displayed to those who are close by, within 20 meters. One can also text shout to 100m, or text whisper to 10m.²⁸ Chatting works well for group encounters. However, it can be seen by folks that are nearby, even beyond walls, so should not be considered very private.

Instant Messaging: Just as on the Internet, IM can be directed at a single individual or a preselected group of individuals no matter where they are in the world. This allows for some form of privacy and

may be used even when the avatars are close by. It is also possible for an IM to be sent to a person's email address and they can respond back into the virtual world.

Voice: Voice allows those with speakers and microphones, or better yet, headsets, to talk to one another. You can talk to those nearby (including through walls), a group, or an individual. The land you are on has to have that feature enabled.²⁹ This may be a great way to do lectures, and a real help for those who can't type well. You may find that others enjoy typing, and feel it is easier for a group to communicate with one another in a meeting.

Linden Labs allows further controls for voice chat within a formal group. A designated moderator(s) can limit those who can speak or text chat to the whole group.³⁰ This helps keep things focused and prevents interruptions. People can continue to Instant Message each other.

An interesting possibility is the use of the gateway that bridges Second Life text chat and IRC. Quick Fox³¹ offers a inworld tool and the use of their IRC servers for free. Thus, people who are not able to run the Second Life client are able to still participate in meetings.

Typing forms of communication can be easier for some to express themselves, or more difficult. Typing may be generally slower and without the ability to convey subtle emotions, but allows for a bit of reflection and structure. Text Chat can also be easily saved and stored. Voice can get a lot of information out quickly with emotional overtones intact. It may also be difficult for some to understand or process. Further, those only doing text chat may not hear the voice communications unless the voice feature is turned on.

Note that the above are forms of *synchronous* communication, where the communication back and forth is almost instantaneous. Synchronous communication goes well with one's immersion in a world and being able to interact with other people. This might be the big strength of holding a support group in a virtual world. Being able to interact with people in a particular setting in real time can be a powerful way to communicate. However, I have not found Second Life to have the proper tools to do asynchronous communication as well as a what a good forum does, with its searchable archives of former posts and the ability to leave and retrieve messages at any time. Second Life does have a variety of messaging abilities, but it is not there...yet.

Profile: Your avatar's profile is available for others to look at and allows you to tell a bit about yourself and/or your avatar. It can include those groups that you belong to, if you want them to be visible. There is quite a bit to the profile window, but we'll leave it at that for now.

Group Organization within Second Life

Second Life has a fairly sophisticated set of tools to organize your group. One can take advantage of some or all of them. It is outside the scope of this paper to explain how the tools work in-depth, but we'll take a brief look at some of them. I think those of you who run on-line groups will be able to appreciate these features. One should note, that a single avatar is limited to only being a member of 25 groups. This may seem like a lot, but is quite a hindrance to some that wish to keep up with a variety of groups.

Most of the group tools are run through the Group window which consists of several areas:

The General area has the group's logo, founder, and the group's charter. There is a list of the members who want to be visible, which includes their avatar's name, title, last login or if they are currently online. One can also see if the group prefers to show up in the Second Life search feature, whether the group's enrollment is open or by invitation, and if there is an enrollment fee. If you are a member of the group you may set your title, if you want to receive group notes, and if you want to have the group listed in your avatar's profile. There is also an indication as to what type of content the group is involved in (Mature, PG, G).

The Members & Roles area is a list of visible members and their roles and responsibilities. These roles can be customized to suit the group and member. Certain roles may be given additional abilities within the group.

Messages to the group, besides more informal text chat or IM, are done by notices. These are text documents that show up when you log in, and can be sent to an email address. The Notice area keeps notices that have been sent to the group and allow some members to send new notices.

Proposals for the group to vote on can also be sent to members. The Proposal area archives former proposals and also allows some to create, poll, and vote. Voting results are also stored here.

The Land & L\$ area shows how much land the group together owns. It also allows members to contribute land to the group. This area also includes how much money (Lindens) the group has or owes. Sales and other financial details are also in this area.

Top Issues for Groups.

I have spoken to a few healthcare group leaders and have asked them about their top issues. Some may be similar to groups anywhere, namely lack of resources and leaders, but others are more virtual world or Second Life specific.

Griefers.

As noted earlier, some people will try to disrupt groups. It may be for their sense of fun, but can also be motivated by politics, religion, or a variety of other reasons. Many leaders I spoke to have not had problems, but some have. There are a number of ways to deal with this in Second Life.³⁰

Landowners, and others with access to some of the tools that control that parcel, can prevent people from making objects, running programs (scripts) that can cause mischief, and prevent people from pushing each other. They can also be used to eject and ban avatars. While some may employ security, this might draw griefers to your group. Using the mute feature makes sure one can no longer hear the other avatar. There are more complex defenses available,³¹ but there is always going someplace else or logging out for a bit.

Group Subscription Limits

As we noted, an avatar can only be a member of 25 groups. However, there are services, some of them free, that allow messages/notecards to be sent to all those who subscribe. While not having all the features of a group, these services do allow one to at least subscribe to get information without using up one of their group memberships. Some of these services are Subscribe-O-Matic, ArtiZans Mailbox,

and Subscriber Kiosk.³⁴

End Thoughts

Virtual Worlds are just another way for people to communicate. For some, the feeling of immersion into these worlds will be quite compelling and provide a healthy environment for their support needs. Others may find it is not to their liking and believe that message boards, email lists, or chats rooms work the best for them. Many people may end up using a little bit of everything in their pursuit of good health.

For those who are already familiar with online healthcare support, but new at virtual worlds, I hope this paper takes a bit of the mystery away, and shows the current features and future possibilities virtual worlds have to offer. This paper cannot replace the actual experience of being active in a virtual world, and I encourage those who are interested to give it a try.

Some resources on the Internet to further introduce you to support groups and healthcare in Second Life-

"Second Lives - John Palmer" Video about John Palmer concerning Support for Healing Island, an area for multiple support groups.

<http://www.youtube.com/watch?v=HVCpeTtf2qc>

"A Second Life on Second Life" Video from the Heron Sanctuary, about a support community and the freedom Second Life brings. The Heron Sanctuary is now part of Virtual Ability, Inc.

<http://www.youtube.com/watch?v=UV52WRXm1Cg>

Virtual Ability Inc, is a non-profit organization helping people with disabilities become involved in virtual worlds. They also have a Second Life presence in-world.

www.virtualability.org

SLHealthy is a wiki that has compiled a great deal of information about the various support groups and their activities within Second Life.

slhealthy.wetpaint.com

SLWellness offers a quarterly magazine on healthcare issues in Second Life. They also have a Second Life presence in-world.

slwellness.com

HealthInfo Island in Second Life is funded by a grant through the National Library of Medicine and features consumer health information. They have a Second Life presence.

healthinfoisland.blogspot.com

The Web 2.0 and the 3D Web (Virtual Worlds and Second Life®) area of CyberHealthyMap has some great lists of links, peer review articles, and the like.
healthcybermap.org/sl.htm

Gustafson D, Shaw B, Isham A, Dillon D and Spartz J. "Exploring the Potential of the Web-based Virtual World of Second Life to Improve Substance Abuse Treatment Outcomes" Robert Wood Johnson Foundation. September 11, 2008. <http://www.rwjf.org/pioneer/product.jsp?id=34428> Accessed Sept 30, 2008.

Acknowledgments:

Maged Kamel Boulos for his insightful, and detailed, suggested additions to this paper. He also keeps a fine collection of Second Life healthcare related information on his website: <http://healthcybermap.org/sl.htm>

Elena for her comments about including barriers and case studies.

American Self-Help Clearinghouse for their suggestions on how to find a support group that is right for you. <http://www.mentalhelp.net/selfhelp/>

Gentle Heron, Carolina Keats, Avalon Birke, Ciebird McCullough, Drangea Lyndhurst, Poppy Zabelin and a host folks in-world.

The Sojourner

End Notes:

1. A nice overview of some of the studies showing the benefits of virtual worlds can be found on the "Medical Benefits" page at Virtual Ability. <http://www.virtualability.org/page6.html> Accessed Oct 1, 2008.
2. Roughly based on the definitions given by Ralph Koster. R Koster. "What is a virtual world?" Ralph Koster's Website. June 15, 2007. <http://www.raphkoster.com/2007/06/15/what-is-a-virtual-world/> Accessed Sept 8, 2007
3. How big an impact virtual worlds will have in the future is the matter of some debate and are covered in the popular information technology press. However, virtual worlds are being taken quite seriously by many, and one would do well to plan for the opportunities that have a good chance of being created. Links to papers covering this, and other topics, are available at: healthcybermap.org
4. "Connecting virtual worlds with Myrl" KZERO. September 4, 2008. <http://www.kzero.co.uk/blog/?p=2449> Accessed Sept 7, 2008.

5. Christopher Sherman as reported by A Singh. "Report: Youth-oriented Virtual Worlds Now Number More Than 150 " TMCnet. August 25, 2008. <http://www.tmcnet.com/voip/ip-communications/articles/37919-report-youth-oriented-virtual-worlds-now-number-more.htm> Accessed Sept 7, 2008.
6. B Snow. "GigaOM Top 10 Most Popular MMOs ". GigaOM. June 13, 2007. <http://gigaom.com/2007/06/13/top-ten-most-popular-mmoms/> Accessed Sept 7, 2008. It should be noted that trying to identify "active members" is fraught with difficult and is more often a tool of the Marketing Department and less often an empirical number.
7. OpenSimulator is an Open Source project than can run Second Life like worlds. It currently may not have all the features of Linden Lab's Second Life, including less sophisticated group tools. <http://opensimulator.org> Accessed Sept 7, 2008.
8. Openlife Grid allows one to run OpenSim without too much configuration. It is beta. <http://www.openlifegrid.com/> Accessed Sept 7, 2008.
9. Teen Grid. Teen Second Life. <http://teen.secondlife.com/> Accessed Sept 7, 2008.
10. "Teen Second Life Community Standards". Teen Second Life. <http://teen.secondlife.com/footer/cs> Accessed Sept 7, 2008.
11. "The Open Grid (Beta): The First Step to Interoperable Virtual Worlds". Ugo Trade. July 7, 2008. <http://www.ugotrade.com/2008/07/31/the-open-grid-beta-the-first-step-to-interoperable-virtual-worlds/> Accessed Sept. 8, 2008.
12. "Community Standards". Second Life. <http://secondlife.com/corporate/cs.php> Accessed Aug 8, 2008.
- 12.1 GreenLife's Emerald Viewer includes encrypted chat. See review at: <http://nalates.wordpress.com/2009/08/03/second-life-emerald-viewer%E2%80%99s-unverified-chat/> Accessed October 1, 2009.
13. "Community Standards".
14. WJ Au. "Second Life's Latest User Stats: Premium Accounts Falling, In-World Hours Rising " New World Notes. July 1, 2008. <http://nwn.blogs.com/nwn/2008/07/second-lifes-la.html> Accessed Sept 8, 2008.
15. As of the time of this writing. <http://secondlife.com/whatis/faq.php#04> Accessed Sept 8, 2008.
16. Lindex Currency Exchange: <http://secondlife.com/whatis/currency.php> Accessed Sept 8, 2008.
17. As of Sept. 8, 2007.

18. AjaxLife is a browser based Second Life client. It also runs on the iPhone.
<http://blog.ajaxlife.net/> Accessed Sept 30, 2008.
19. Virtual Ability is a non-profit dedicated to helping those with disabilities have access to virtual worlds. www.virtualability.org Accessed Sept 9, 2008.
20. "Second Life Virtual World Expands 44% in Q2." Second Life Blog. July 8, 2008.
<http://blog.secondlife.com/2008/07/08/second-life-virtual-world-expands-35-in-q2/> Google doc Accessed Sept 9, 2007.
21. J Norris. "Medical Help for Avatars". Knoh Oh Second Life Healthcare Tourist. February 27, 2008. <http://www.sluniverse.com/pics/pic.aspx?id=255967&Name=Knoh+Oh> Accessed Sept 8, 2008.
22. J Norris. "Peace Valley Clinic for Tinies". Knoh Oh Second Life Healthcare Tourist. April 25, 2008. <http://www.sluniverse.com/pics/pic.aspx?id=272459&sort=newest> Accessed Sept 8, 2008.
23. J Norris. "Medical Role Playing". Knoh Oh Second Life Healthcare Tourist. July 20, 2007.
<http://www.sluniverse.com/pics/pic.aspx?id=190969&Name=Knoh+Oh> Accessed Sept 8, 2008.
24. P. Linden "Year-end Updates, and thanks for the Emmy!". Second Life Blog. Jan 9, 2008.
<http://blog.secondlife.com/2008/01/09/year-end-updates-and-thanks-for-the-emma/> Accessed Sept 8, 2008.
25. P Kuhn. "Relay for Life Second Life". Non Profit Commons. August 3, 2008.
<http://secondlife.techsoup.org/node/309> Accessed Sept 11, 2008.
26. List created from those groups collected at SLHealthy as well as paging through the first 100 pages of the search results for the keyword "support" in the Second Life client's search engine. This would not bring up those groups who wish remain private. Search performed on September 24, 2008.
27. "Virtual Peer Support for Cancer Survivors in Second Life". Poppy Zabelin. Presentation at the September 2008 SLCC Health and Support Track. Slides available.
http://flickr.com/photos/poppy_zabelin/3046009876/in/set-72157609544904116/ Accessed Jan 3, 2009.
28. "Local Chat And Global Instant Messaging". Second Life. <http://www.secondlife-game.com/explanations/local-chat-and-global-instant-messaging/> Accessed Sept 9, 2008.
29. "Voice Mentors: Getting Started with Voice". Second Life Wiki. http://wiki.secondlife.com/wiki/Voice_Mentors:_Getting_Started_with_Voice Accessed Sept 9, 2008.
30. "Second Life 1.21 release candidate now gold". Tateru Nino . October 16, 2008.
<http://www.massively.com/2008/10/16/second-life-1-21-release-candidate-now-gold/print/>

accessed Jan 3, 2009.

31. Quick Fox (<http://www.quickfox.net/>) offers the "QuickFox.net IRC <-> Second life gateway/relay system" for sale for free in-world.

32. I've taken a few pointers form the excellent article, "Griefers- what to do". Nonprofit Commons. <http://npsl.wikispaces.com/Griefers-+what+to+do> Accessed Jan 3, 2009.

33. Ibid.

34. "I wish my support group had..." Discussion Topic. SLHealthy.
<http://slhealthy.wetpaint.com/thread/2149328/I+wish+my+support+group+had....> Accessed Jan 4, 2008.

This paper is released under the Creative Commons Attribution-Share Alike 3.0 license.