

Valerie Hill and Marcia Meister

# Virtual worlds and libraries

## Gridhopping to new worlds

The initial hype about virtual worlds may have cooled from the high of a few years ago, but librarians and educators actively use virtual worlds in many different ways. Librarians were early explorers of Second Life, the virtual world most widely recognized for educational uses, but many are now “gridhopping” to other worlds to understand the potential beyond the proprietary Linden Labs venue.

The ever-changing virtual world availability presents many alternatives to Second Life. The ACRL Virtual Worlds Interest Group and the ACRL in SL counterpart (a Second Life group) have met regularly in Second Life since 2008, presenting programs, participating in research on the use and value of virtual worlds, and exploring immersive educational project sites.

The Second Life virtual world is the most well known virtual platform<sup>1</sup> and as it celebrates ten years of public access, many librarians, educators, gamers, role players, and other Second Life residents are evaluating their experiences in Second Life along with other worlds. Second Life’s longevity and its economy, in which you can purchase or acquire an astounding variety of goods and services developed by residents, make it the virtual world where many people begin their virtual experiences and come together to meet and share experiences, training, and insights into developing other places.

Librarians have been active in Second Life since 2006<sup>2</sup> and remain active in developing creative environments for lifelong teaching

and learning.<sup>3</sup> Among the earliest adopters for educational use of virtual worlds, librarians and information literacy specialists began building and sharing resources by 2007.<sup>4</sup> The potential for teaching across the curriculum and for reaching disabled patrons through this new medium was heralded as an important breakthrough in innovative technology.<sup>5</sup> Research on the adoption of virtual world tools, techniques, and effectiveness has advanced the understanding of virtual and immersive spaces.<sup>6</sup> Fourteen tools that are useful for immersive learning, delivery of 3-D content, and global collaboration for educators and librarians were identified through exploration of Second Life.<sup>7</sup>

Second Life has been an excellent foundation for expanding into other virtual world platforms, and now the question becomes, What else is out there with applications suitable for librarians and educators?

When Linden Labs, Second Life’s parent company, announced in 2010 that discounted land prices for educational institutions and nonprofits would be eliminated, causing costs to almost double, educational institutions with a Second Life presence had to re-evaluate commitment to their sites.<sup>8</sup> Although

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membership in Second Life is free to users, institutions, organizations, or individuals wanting to develop or host a site must either rent or purchase land. The pricing changes in effect after 2010 were at least partly responsible for movement from Second Life to other platforms.

Many institutions or agencies need secure sites that can be controlled by the owner and hosted on their own servers, another factor in movement. Meanwhile, OpenSim allowed development of open simulator versions of virtual worlds with aspects similar to Second Life, and development of other virtual platforms took off.

This review presents some alternatives to Second Life for using virtual worlds in education and libraries. For purposes of this column we define *virtual worlds* as: "A virtual world is a synchronous, persistent network of people, represented as avatars, facilitated by networked computers."<sup>9</sup>

There are now literally thousands of virtual worlds and many hosting services. Criteria for inclusion in this resource review are examples of grids with an established educational presence or targeted towards education. Because virtual worlds have so much to offer visually, we have included links to machinima (video shot inside a virtual world or computerized video game) that archive some virtual builds, meetings, and experiences.

Thanks to the ACRL in SL group for providing the inspiration for this column and for sharing the collaborative experience.

## General information

More information comparing virtual worlds can be found in *Hypergrid Business*.<sup>10</sup>

- **OpenSimulator.** OpenSimulator is an open source multiplatform, multiuser 3-D application server. It can be used to create a virtual environment (or world) that can be accessed through a variety of clients on multiple protocols. It allows for customization of virtual worlds similar to Second Life, but is an open source project.<sup>11</sup> Open simulators also support Hypergrid, an extension that allows linking between participating OpenSims. Access: <http://www.hyperica.com/how-to-travel/>.

## Virtual worlds

- **Inworldz.** Inworldz looks and functions quite similarly to Second Life, although it is an



Screenshot of Inworldz. View this article online for detailed image.

OpenSim platform. With 6,390 active users, there are librarians and educator sites, user groups, and user support, as well as a marketplace of

goods and services similar to Second Life. Inworldz has developed its own viewer, but users can also use third-party viewers. Inworldz is free to use. Land prices are based on purchase of Private Isles or Mainland regions. Private Isles are full regions with more functionality and management capabilities than a mainland region. Mainland regions are available at smaller price than Private Isles, have some restrictions in size, and prim count (prims are the building blocks). Private Isles are priced at \$75/month, with a \$75 setup fee attached. Mainland pricing is at \$60/month with a \$60 setup fee. The ACRL Virtual World Interest Group toured the library in August

2012 viewing a demonstration library. An archived video tour with ACRL in SL group is available.<sup>12</sup> Access: <http://inworldz.com/>.

• **Jokadia.** JokaydiaGRID is an OpenSim-based virtual world focused on Education and



Screenshot of Jokadia.

the Arts. Cost for land in Jokaydia, owned by an educator in Australia, starts at \$22 with a \$45 set-up fee. Rentals are also available, with regions supporting 15 to 20 avatars, and movie- and MP3-streaming is supported. Sign-ups are free, and community and developer support is available. Voice is not currently available, but the developers are working on features. Video shows a demonstration library for lifelong learning developed by a doctoral candidate in library science. An archived video with ACRL in SL group is available.<sup>13</sup> Access: <http://www.jokaydiagrid.com/>.

• **Kitely.** Kately is another OpenSim platform with different hosting options as well



Screenshot of Kately.

as a free plan. Land owners can pay for a virtual world for a monthly cost of \$40. US per month for a region that can support up to 100 concurrent users or pay for a time-based billing based on the time actually spent in your virtual world. Kately uses voice, and can be accessed through the same viewers that are used with Second Life. An archived video with ACRL in SL group is available.<sup>14</sup> Access: <http://www.kitely.com/>.

• **Reaction Grid, Jibe, and Unity**

**3D.** Reaction Grid develops 3-D projects and provides platforms for virtual worlds. Jibe is the company's virtual world platform. Jibe can be hosted by ReactionGrid or installed on a server and behind a firewall. ReactionGrid's team can also provide custom design services. The Unity 3D plugin makes it possible to access a Jibe world through a standard browser installed

on a MAC or a PC. Tools for tablet access are may be under development. A variety of tools and services help designers develop projects. Consult John Lester's blog, "Be Cunning and Full of Tricks,"<sup>15</sup> for in world office hours and more information: Costs depend on products and services. An archived video with UW Avalumni (University of Washington Virtual Worlds Alumni group) is available.<sup>16</sup> Access: <http://reactiongrid.com/>

• **Second Life.** As mentioned above, Second Life remains the virtual world with the most highly developed resources and is the place where many active participants gather to share experiences and hold meetings and conferences. Annual Virtual Worlds Best Practices in Education conferences are held in Second Life and draw many participants. The platform has improved graphic capabilities in the past few years, and building tools have enabled resident creators to develop more realistic and creatively designed avatar appearance, clothing, buildings, and other objects. Advantages

of Second Life include the wide variety of sites; voice, chat and IM communication; established groups for social, creative, and educational collaboration; and large membership. The number of concurrent users online is somewhere around 50,000 but can be more than 80,000 at peak times,<sup>17</sup> so users can hope to find a variety of events, both educational and recreational, where they will meet other residents. Membership is free, and it is possible for users to have a full experience without spending any money. Institutions developing a sustained presence will want to purchase or rent land. Land costs are determined by the size of the parcel. A land region is \$1,000 for a full region, 65,536 meters, with a \$295

monthly fee, but land can be purchased from Linden Labs in sizes as small as 1/128th region, 512 square meters, with a monthly fee of \$5 month and options inbetween; prim counts vary by size of land.<sup>18</sup> A disadvantage of Second Life for institutional use, in addition to the high land costs, is that it does not operate behind firewalls. Second Life and most other virtual worlds are not supported by mobile apps; however, there are unofficial apps for limited use, often with the ability to view chat and instant messages. An archived video tour of Virtual Montmartre with ACRL in SL group is available.<sup>19</sup> Access: <http://www.secondlife.com>.

- **Sococo.** Most educators and librarians find the “sense of presence” felt in virtual worlds to present an advantage not found in Webinars or other distance education platforms. Through creating an avatar and situating oneself with the environment, the virtual space becomes actively shared instead of passively viewed. Sococo, a virtual world without simplified avatars, is a bit different.

Each individual is represented by a colored dot (instead of an avatar) and can move from room to room on the virtual world grid. An archived video with UW Avalumni (University of Washington Virtual Worlds Alumni group) is available.<sup>20</sup> Access: <https://www.sococo.com/>.

- **Spot On 3D.** Some virtual worlds, such as Spot On 3D, are marketed for business, recreation, and education. The cost for a



Screenshot of Sococo.

15,000-prim region is \$60 with no set-up fee. The UW Avalumni Group toured Spot On 3D, and the field trip illustrates the business conference setting. Spot On 3D shares this slogan on the Web, “Jump INTO the 3D web- a place to GO TO rather than a page to read.” An archived video with

UW Avalumni (University of Washington Virtual Worlds Alumni group) is available.<sup>21</sup> Access: <http://spoton3d.com/>.

## Other virtual worlds to consider

- **Dreamland Metaverse.** Dreamland Metaverse is a popular OpenSim hosting provider with a large membership. Access: <http://www.dreamlandmetaverse.com/>.

- **Osgrid.** Osgrid is an active OpenSim grid organization of linked participating regions with educational members. Access: <http://www.osgrid.org>.

## Future of virtual worlds

Like any gaming experience, Second Life and other virtual world graphics are best experienced with a fairly high-end computer with good graphics cards. Most virtual worlds require downloading a viewer, either a proprietary viewer like the official Second Life viewer or one of a number of third party viewers used to access OpenSim virtual worlds as well. As virtual worlds

continue to evolve and change, viewers will change and upgrades are imperative.

Virtual worlds accessible through a browser are developing, and there are even virtual world instances that run off a USB drive or sim-on-a-stick.<sup>22</sup> Applications for tablets will open up virtual experiences to more users more easily; however, a corresponding loss in the total immersive experience may be expected with smaller screens. Moving content between platforms and gridhopping from one virtual world to another is improving. Educators and librarians will need to evaluate sustainability as well as benefits, advantages, and disadvantages in order to understand best practices for content delivery, instruction, information literacy, professional development, and global collaboration. Selecting a platform for a virtual world project now offers multiple choices.

## Notes

1. KZeroWorldwide, [www.kzero.co.uk/](http://www.kzero.co.uk/), accessed October, 2012.

2. Lori Bell with Kitty Pope and Tom Peters, "The Universal Library in a Virtual Universe," *Searcher* 16, no. 5 (2008): 26–61.

3. Denise Cote, Beth Kramer, Diane Nahl, and Robin Ashford, "Academic Librarians in Second Life," *Journal of Library Innovation*, 3, no. 1 (2012): 20–47, [www.libraryinnovation.org/article/view/87](http://www.libraryinnovation.org/article/view/87).

4. E. Grassian and R. Trueman, "Stumbling, Bumbling, Teleporting and Flying . . . Librarian Avatars in Second Life," *Reference Services Review*, 35, no.1 (2007): 84–89, doi: 10.1108/00907320710729373.

5. Beth Kattelman, "It's time for a second life," *C&RL News*, 69, no.10 (2008): 614–7, <http://crln.acrl.org/content/69/10/614.full.pdf>

6. Valerie Hill, "Factors Contributing to the Adoption of Virtual Worlds by Librarians," PhD Dissertation, Texas Woman's University, Proquest Dissertations and Theses, <http://search.proquest.com/docview/1022302502?accountid=14505>.

7. Valerie Hill and Hyuk-Jin Lee, "Libraries and Immersive Learning Environments Unite in Second Life," *Library*

*Hi Tech* 27, no. 3 (2009): 338–56, doi: 10.1108/07378830910988487.

8. "Second Life to Drop Educational Discount," *Chronicle of Higher Education* blog, Oct. 5, 2010, retrieved from <http://chronicle.com/blogs/wiredcampus/second-life-to-drop-educational-discount/27458>.

9. Mark W. Bell, "Toward a Definition of Virtual Worlds," *Journal of Virtual World Research* 1, no.1 (2008), <http://journals.tdl.org/jvwr/index.php/jvwr/article/view/283>.

10. *Hypergrid Business* tracks virtual world news, provides a directory of OpenSim vendors, and lists hosting, service, and content providers, [www.hypergridbusiness.com/](http://www.hypergridbusiness.com/), accessed November, 2012.

11. [http://opensimulator.org/wiki/Main\\_Page](http://opensimulator.org/wiki/Main_Page).

12. <http://vimeo.com/43742003>.

13. <http://vimeo.com/50100853>.

14. <http://vimeo.com/43276128>.

15. John Lester's blog, "Be Cunning and Full of Tricks, Strategies for Pioneers in Education, Online Communities and Virtual Worlds," <http://becunningandfulloftricks.com/>, accessed November 2012.

16. <http://vimeo.com/37404090> (Jibe).

17. Daniel Voyager's Blog, <http://danielvoyager.wordpress.com/>, accessed November, 2012.

18. <http://secondlife.com/corporate/pricing.php>.

19. [www.youtube.com/watch?v=JkIiauRlcpo&feature=share&list=UURxwLEmZILcl74lwKx2wJSQ](http://www.youtube.com/watch?v=JkIiauRlcpo&feature=share&list=UURxwLEmZILcl74lwKx2wJSQ).

20. <http://vimeo.com/38953196>.

21. <http://vimeo.com/37564916>.

22. <http://simonastick.com/>.

## References

Joe Floyd and Ilene Frank, "New Immersive Worlds for Educators and Librarians: Beyond Second Life," *Library Hi Tech News*, 29, no. 6 (2012): 11–15, doi: 10.1108/07419051211277940.

Sheila Webber and Diane Nahl, "Sustaining Learning for LIS through use of a Virtual World," *IFLA Journal* 37, no.1 (2011): 5–15, doi: 10.1177/0340035210397137. **ZZ**