



Second Looks at Second Life: Considerations on the Conservation of Digital Ecologies

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Abstract

Libraries, archives, and museums (LAMs) have been the curatorial stewards of cultural heritage for some 5,000 years. The emergence of virtual worlds/immersive online realities as containers/conveyors of cultural heritage is presenting new preservation challenges to LAMs. Second Life is one virtual world that has achieved a level of ubiquity as to serve as model for all such digital environments, having a sufficiently large enough number of common problems from which to learn. The sheer complexity of the Second Life environment argues for a more “ecological” approach. The use of Second Life as an environment for government, commerce, education, and art has resulted in the creation of digital cultural heritage materials that are at risk. Successful approaches are examined, alternatives considered, and new directions are recommended.

KEYWORDS: digital preservation, digital ecologies, digital cultural heritage, Second Life, machinima

1. Introduction

The virtual world Second Life is an example of why the library, archives, and museum (LAM) community needs to become more directly engaged in the decision-making processes of the digital preservation concerns surrounding virtual immersive environments. Taking the conservation of whole ecologies as a preservation strategy is appropriate to providing the context of meaning and relationship in Second Life that might otherwise be lost if current “data set” practices are maintained.

This departs from the usual concepts of digital preservation that focus upon the preservation of data as found in aggregate file structures or systems and their content. The latter, while capable of considerable automation, lends itself to the fragmentation of context and a susceptibility of losing the various relationships that may have initially existed between the aggregates of the data. Such losses are unacceptable and can be avoided by adopting more holistic approaches.



2. Definitions

Second Life is but one of many virtual worlds, yet it possesses qualities that make it a model for working with other similar immersive and interactive digital environments. It has the defining quality (for “virtual worlds”) of what has been described as “persistent user-modifiable content”; this quality is best characterized as content which is created by users that persists within the virtual environment regardless of whether the creator/user is present and can be further modified by other users (Duranske, 2007)¹.

This is important, as it is an operative distinction from those games that utilize virtual, immersive environments. A virtual world may contain games (there are many games that are played in the Second Life environment), but games rarely achieve this status of “virtual world.”

3. The Legacy

Libraries, archives, and museums (LAMs) have been curatorial stewards of cultural heritage for some 5,000 years. The nature of that stewardship has been evolving along with the available technologies. As our cultural manifestations have become increasingly digital in nature, LAMs have incorporated digital technologies to document, acquire, present, and preserve that culture. Documentation has become a part of the historian’s domain and virtual worlds, while certainly *au courant*, have existed and flourished for a modestly significant amount of time while gaining the attention of historians who seek to record that emergence.

The definition of “significant time” is related to the rapidity with which digital technologies are embraced and then discarded. Complex environments were being created and used as early as 1998, in such projects as the Virtual UC Santa Cruz, which certainly foreshadows much of what we see today in Second Life. Perhaps not so coincidentally, Philip Rosedale founded Linden Lab in 1999, and for the first two years, the lab’s work on Second Life was developing it as an immersive, objective-driven game. From 2001 onward, the focus of Second Life development by Linden Lab has been user-generated content and a community-driven experience².

4. The Present

The emergence of virtual worlds as conveyors of cultural heritage is presenting new preservation challenges to LAMs. It is important to understand some of the distinguishing characteristics of what we mean by “virtual worlds.” Virtual reality is no longer a new concept and the number of virtual worlds is growing regularly. There are whole “universes” of virtual worlds of varying complexity, depth, scope and breadth.

The highly social dimension that now exists in Second Life is of extreme importance. This increased “sociality” demands a critique of Second Life historiography; indeed, it requires more of an archivist’s, an historian’s, or an ethnographer’s approach and sensibility to talk about how and what to preserve in Second Life, not the perspective of a computer scientist or game programmer.



It is important to distinguish between the different approaches needed to preserve game content versus virtual world content. Games, whether of the massively-multiplayer online type (MMOGs) such as *Eve*, *World of Warcraft*, or *Everquest*, the single player, or the various player versus player type, require different means of capturing the essence of the game, its story arcs, structures, and rules than when trying to capture the ecological complexity of a socially-driven immersive world. It is, however, difficult to decide the appropriate method for capturing MMOGs that approach the qualities that define a virtual world, as defined above. In such cases, a more ethnographic or documentalist approach is certainly appropriate in order to address the highly social nature of such games. Additional difficulties lie in *Second Life*'s proprietary underlying environment, the user-created content with its issues of "ownership" and the currently "closed" nature (i.e., the rules, regulations, and requirements for entry and use of the software) of the environment.

The use of *Second Life* as an environment for government, commerce, and education raises legal and fiduciary issues. One has to consider if current records management practices are sufficient. A recent conversation with the founder of a group called "Archivists of *Second Life*" (an organization in *Second Life* having as a mission, among others, providing "leadership in the identification of records/archives of historical value to the residents of *Second Life*") revealed no encounters with anyone with a records management background.³ Given the legal requirements and mandates usually associated with government, business, and education, the failure of *Second Life* to be on the proverbial radar of records managers is troubling at best and represents an area for further research, outreach, and education in itself.

5. The Future(s)

Linden Lab continues to evolve *Second Life* in new, but not totally unexpected, directions. The sheer scale of user numbers has drawn attention from the usual suspects, intent on making their fortunes. There is constant talk of the Lab selling or going public. Linden Lab has very deliberately announced various initiatives and strategic partnerships that suggest that they have an interest in promoting *Second Life* as a platform and technology for others to essentially license from the Lab. Distinction is now made between "*Second Life Online Virtual World*" and the "*Second Life GRID Virtual World Platform*" on the *Second Life* website.⁴ The "business" of Linden Lab, or as it is increasingly self-identifying, "*Linden Research, Inc.*," is very deliberately appealing to enterprises, government, and education entities to use their platform. While this latter may be a shrewd business strategy, it carries considerable ramifications for any kind of preservation of content. Further, as these entities begin using the *Second Life* platform to conduct their business, there continue to be concerns about the records of transactions that occur.

That Linden Lab is diversifying their offerings should hardly be surprising in light of the competition from other companies and initiatives to provide similar platforms for virtual worlds. The Lab has released the *Second Life* viewing client (the "Viewer") to the open source community, but still maintains very tight control over the *Second Life* server code, as this is clearly seen by them as where money can be made. In a research partnership with IBM, experiments were conducted on 30 June, 2008, to see if alternative grids would be compatible to



allow an avatar from the “official” Second Life grid to traverse to other grids not running on Linden Lab servers. The experiments were a qualified success in that the avatars were able to travel, but the “inventory” did not transfer across with the avatar.

The Open Grid Public Beta, as the experiment was known, was the attempt to develop virtual worlds with compatible underpinnings allowing inter-operability and new levels of customization, user control, or security. Along with the Open Grid, there is a competing free open source initiative called the OpenSimulator that is quite forthright in attempting to create a virtual environment “similar to Second Life.”⁵

More recently, Blue Mars, which is still in beta, is gaining attention, but fails to offer some of the inclusivity that is one of Second Life’s hallmarks. By comparison, Second Life runs on Windows, Linux, and Mac OS X; Blue Mars is exclusively Windows. Blue Mars is gamer-oriented (reminiscent of the early incarnations of Second Life) and unlike Second Life, is not user-content driven. In direct competition with Second Life, Blue Mars is making an appeal to educators and business.

6. Conclusions

Digital preservation, at the most fundamental granularity, is rightly focused upon the preservation of “data” and there are best practices and guidelines in place for doing just that. But the preservation of digital culture, and especially virtual worlds, is more than simply “saving” data.

The preservation of digital culture must include and retain the context of that data which comprises the culture. This is an elusive goal and is at the root of the need for understanding that “the back up is not the archive.” It is important to look at some of the “outside strategies” for more inclusive documentation and context-creation (Moser, 2009)⁶. This includes the utilization of open source solutions for institutions desiring the use of virtual worlds without tying them to the less-open environment of Second Life proper. Running one’s own servers (especially Second Life viewer-compatible ones such as the aforementioned open source OpenSimulator), means being able to more confidently fulfill the obligations and legal requirements that may be incumbent.

A change in documentation is also needed. A more “ethnographic” approach, akin to archeology or cultural anthropology, is beneficial and appropriate for the documentation of digital culture. We are talking about whole systems, or preservation of an ecology, not “data set” preservation. The tools of the ethnographer and cultural anthropologist need to be adapted to use in Second Life. Documentary film in those fields has been highly effective; the application of this approach to Second Life is just beginning. Live motion screen capture and the use of machinima (i.e., in-situ created animated videos of the worlds) are providing documentaries that reflect the richness of the environment. This also includes the use of inworld tools that “follow” the avatar to record the important and elusive avatar-avatar interactions. No one tool is sufficient to capture this environment. We must consider the ecological approach, where each element has a direct



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connection to the whole. Such environments are multi-modal; our tools must likewise be multi-modal.

Bruce Damer is a pioneer in this approach. Damer has been documenting the history of virtual worlds, focusing upon environments with social interactivity as the emphasis, as opposed to the “gamer”-oriented ones. He has produced videos documenting some of the earliest worlds. His videos approach the subject from within their environments, allowing us a window into those worlds. As these predate the use of machinima, they do have some shortcomings not seen in Second Life machinima. They are still useful if only for the avowedly historical perspective utilized. His footage of Bonnie Devarco’s Virtual UC Santa Cruz is an example succinctly documenting early virtual worlds.⁶

Damer’s approach and work contrast sharply with the approach of his affiliate, Henry Lowood. Lowood is a key member of the “How They Got Game” collaboration at Stanford Humanities Lab, itself a part of the Preserving Virtual Worlds project, funded by the National Digital Information Infrastructure Preservation Program (NDIIPP) funded by the U.S. Library of Congress. Sadly, Lowood’s approach conflates games with virtual worlds with less than satisfactory results. Virtual worlds simply are not the same as games. An example of this “game” approach to a virtual world, “Tabula Rasa: The Final Stand” is lacking in depth and context. The approach simply fails to capture the enormity of what is being examined. Tabula Rasa was a MMOG that was, by definition, a virtual world. What Lowood’s approach has given us is snapshots when we need panoramic videos.

7. References

1. From the Editor: Are MMO Games “Virtual Worlds?” Benjamin Duranske, 25 February, 2007. <http://virtuallyblind.com/2007/02/25/from-the-editor-are-games-virtual-worlds/> (Accessed, 15 October 2009)
2. From the wiki, http://en.wikipedia.org/wiki/Second_Life ... the entry has an overview of “what” Second Life is. It provides an excellent explanation of the breadth of experience to be found there. (Accessed 15 October, 2009)
3. Taken from the “Archivists in Second Life” Group Charter, the mission statement says they exist to:
 - * To promote the profession of records/archives preservation and records/archives access in and through Second Life.
 - * To provide education, research and networking opportunities for archivists in and through Second Life.
 - * To provide leadership in the identification of records/archives of historical value to the residents of Second Life.”
4. This from the Linden Lab URL, <http://lindenlab.com/>, with its links to the online virtual world page, <http://secondlife.com/>, and the GRID page at <http://secondlifegrid.net/>. The GRID is



described as a “Virtual World Platform for Business, Education, & Government | Second Life Grid”.

5. The OpenSimulator project, while declaring itself to be alpha software, is compatible with the official Second Life viewer, runs on a variety of operating systems including various flavors of Linux, Mac OS X, Free BSD UNIX, and several versions of Windows. It is being promoted as a fully open source alternative to the closed source Linden Lab’s Second Life server.

6. “The Avatar in The Archives: Issues of Documentation and Preservation of New Media Art and Virtual Worlds”, Dennis Moser, May, 2009. LIDA 2009 Conference Proceedings, LIDA 2009, Dubrovnik/Zadar, Croatia.

7. The Internet Archives contains some 96 entries by Damer; while this is a keyword-driven count, most of those are linking to the videos from his collection. The Devarco video can be found, directly, at this URL: http://www.archive.org/details/vw_virtual-ucsc-devarco