WITH MOST REAL LIFE libraries preferring e-books to physical copies, it may be somewhat ironic to observe that the machines and tools used to make the physical objects are being meticulously reproduced in virtual worlds. In fact, virtual printing presses can produce virtual books that a virtual person or avatar can sit down with and read. Second Life is the largest of these virtual worlds that allows user generated content. Several years ago, Second Life was a hot topic in libraries. Linden Labs, the company who created Second Life, offered educational discounts for land and many beautiful virtual libraries were built. Avatars created interactive environments based on classic literature filled with metaphorical devices, pop-up notecards, and links to sites containing music and photographs from the time period. Some teachers brought their students to see the sites, but it never really caught on. Libraries changed their focus from creation to support, providing resources to students who wanted to study and write about topics such as cyberculture and psychological issues in role play.

Despite studies declaiming its demise, Second Life did not go away and, at any given time, 30,000-50,000 people from all over the world will be logged on. For those who have not experienced it, Second Life looks like you’re in an animated film in 3D. The camera sits behind your avatar, so as you press the arrow keys to walk, you can see
where you are going. You can focus on objects and interact with many of them. For example, a chair might give you the option of sitting in it and it might even give you a book to read while you sit. If some other avatars are around, you can chat with them. If they tell you about something they like, they can give you a landmark. Then you can use it to teleport to that location. I use Second Life mainly for teaching and illustrating concepts relating to conservation, but I wondered how other book artists are using it so interviewed a few for this article.

The place for writers is Book Island. Avatar Olivia Whitsend, editor Carole Cudnik in real life, goes there to network. One can pick up a schedule of events and find a writing class or hear a reading. There’s an open mic where one can read a work in progress and get comments. There are workshops on topics such as how to promote a self-published book. Olivia hosts a Fix & Flash group, in which one writes for 15 minutes incorporating a random word or phrase given at the beginning of the event.

Avatar Juanita Deharo created Second Edition Book Store and worked with Richard Minsky on the Book Arts Museum. Both places are gone now, but Juanita is still involved in book arts. In real life, she is artist Judy Barrass. Her pieces lately have been constructions made of handmade paper with images from Second Life projected onto them. We talked about how the book is changing. She said, “I am not sure though if books are not now just an artifact from the past. E-readers are also becoming things of the past. We actually now want our eyes to stay still and the text to move.”

Avatar Misprint Thursday imports her real life artwork into Second Life and turns it into a multimedia environment. In her piece called Paranormal Frottage, she started with rubbings she had done on paper while in Paris. She added music, wrote lyrics and added video. She says, “I find that multimedia is more capable of expressing a fuller complexity, a richer experience, particularly emotively. So now I am interested in augmented reality, so if I made a book, it could be augmented with this kind of media, using a device.” An avatar can walk through her pieces, interact with, and become part of the work. I hope to see her augmented reality pieces which involve superimposing computer generated imagery onto real life and viewing it though an app in one’s phone or tablet.

Kat2 Kit, who is artist Matt Shapoff in real life, has an 1895 Pearl printing press in both lives. The virtual version was built by avatar RJ Kikuchiyoo from plans and photos supplied by Matt. The virtual Pearl looks like it would work if one could export it into real life. The rollers ink the plate, the wheel turns, and cyanotypes fly out of the press and settling on the floor to symbolize the working style of the artist. Avatar Kat2 takes photos in Second Life. Then Matt makes transparencies from them and turns them into cyanotypes. He then embosses each one using the real Pearl press. The images in his artwork look convincing because of the process, which gives his images
a surreal quality since they are real photographs of something that doesn’t exist physically.

Avatar Villain Baroque’s passion is printing. He lives in Germany and is a publisher in real life. He likes to create in Second Life as a way to relax. He has been fascinated by printing since his father took him to the Gutenberg Museum when he was a child. He says, “I find it fascinating how a white piece of paper is all of a sudden filled with print. One second it’s pure white, the next second it’s totally changed—A miracle.” He has included this experience in his printing press, the Zeitmesser, which was inspired by a Heidelberg press. This press is animated and one can see the roller going over the plate. The press closes. When it opens, the paper inside has been printed. The Zeitmesser press is offered for sale. While some printing plates are included, he has made it possible to make your own. When visitors click it, the press gives them keepsakes, virtually printed from the chosen plate.

My own offering in Second Life is Trilby’s Mill, a paper mill, letterpress printing studio and perhaps the only bindery in Second Life. The Mill is located in Caledon, a steampunk Victorian themed neighborhood. The building’s walls are made of book shelves and the foundation is a card catalog. Gargoyles made of 200-year-old marbled paper turn to watch as visitors enter. Most of the equipment fits the time period, though I’ve taken a few liberties, such as an imaginary steam powered Vandercook style printing press with claw feet modeled after those on my grandmother’s couch.

I generally bring my students here when they ask about paper grain. I point out the Hollander beater driven by a water wheel. There’s also a mold and deckle floating in a vat of slurry, ready to form the sheets by hand. I can zoom in on the mold and deckle, describe how a handmade sheet is formed, then describe the industrial process, using a roll of paper towels as a model in real life, and explaining that the reason they never tear well is because they are designed to be torn against the grain. Some students ask about marbling. I can show them a marbling tank and describe that process. Many students told me afterwards that going to the mill really helped them to understand how paper is made and that it made much more sense to them than before.

Next I take them upstairs to see the print shop and bindery. The presses include the Vandercook mentioned earlier, Villain Baroque’s Zeitmesser press and a Gutenberg era press. All are animated. The bindery has
Walking through something in a virtual world is different from looking at a website because it feels like really being there.

A bench at which an avatar can sit and sew a book on a sewing frame. On the bench is a nipping press, buckram covered bricks, a finishing press and various tools and supplies. There is also a board shear and a job backer. The latter is animated and will give the visitor a French backing hammer, which he or she can then wear and use to back a book.

Walking through something in a virtual world is different from looking at a website because it feels like really being there. One sees the environment in three dimensions, sounds play and the brain believes it at some level. In my own experience, if my avatar falls off of a high building, my heart races. When I explore a Frank Lloyd Wright building in Second Life, then tour the same building in real life, I feel like I’ve been there before. A visitor to a virtual site takes with them a memory of an experience.

All of the places mentioned are open to the public and the coordinates that follow. A SLURL is a Second Life URL. Clicking on it will link to the Second Life browser to let your avatar teleport to the location. Second Life is free. The program can be downloaded at secondlife.com.

Websites
Misprint Thursday http://www.misprintthursday.com
Juanita Dehara http://judybarrass.wordpress.com
Matt Shapoff http://handmadeonpeconicbay.blogspot.com
Printer’s Devil Project http://ett.arts.uwo.ca/printersdevil/site/about.html

SLURLs
Villain’s store http://maps.secondlife.com/secondlife/Villain/79/97/29
Ephraim’s shop http://maps.secondlife.com/secondlife/Western%20University%20%20Mayfair/226/132/24

Bevery Schlee, MFA, is Conservator, Preservation Services at the Arizona State University Libraries. She can be contacted at binderb@asu.edu.
At times, the library and archive preservation world seems divided between analog and digital camps. While their overall goal may be the same, their practices and cultures are often quite different. Lance Stuchell, Digital Preservation Librarian at the University of Michigan, and Kevin Driedger, Librarian for Conservation and Digitization at the Library of Michigan, engage in a dialog to bring to light these two perspectives and hopefully reveal a more complete understanding of preservation.

What is your one sentence description of what you do for someone who knows nothing of your work?

Kevin: I usually say “I fix old books and maps.” I used to say “I conserve” but that is such a goofy verb that doesn’t have a lot of meaning for most people. People seem to understand fixing old books and maps. I accept that this is not a much nuanced description of what I do, but I’m comfortable with that as nuance takes a lot of time to communicate. Someone once said something along the lines of “you fix a broken chair but you conserve a Gustav Stickley chair.” I like to rebel a little against the perceived “preciousness” of my work so I like the more common and unprecious “fix.”

Lance: I usually say something like, “I act as an internal consultant, providing information on current digital preservation practice and policy development.” If that does not work, I tell people what I tell my nephew: “I help to make sure important digital stuff does not get deleted.”

What do you call yourself and those who work in your profession?

Lance: My job title is digital preservation librarian. I tend to use that as much as I can, as people seem to have at least a basic birds-eye understanding of what librarians do. I identify strongly with the digital preservation practitioner community but also with librarians and archivists.

Kevin: I bounce all over the place with what to call myself. I’m perfectly comfortable with “conservator” but I like to include the context within which I work, so I’m more likely to call myself a conservation librarian or librarian for conservation. (Actually I still feel a bit sheepish about calling myself a conservator as I don’t feel competent enough, but that’s my own problem.) Lately, when people ask what I do my response is “I’m a librarian” and go into the conservation detail only if they pursue it further.
In recent library history, there were distinct positions of “preservation administrator” and “conservator” but those distinctions seem to be increasingly blurred.

I will add that my colleagues and I tend to grimace at being called conservationists or preservationists. I’m not sure why those terms feel like fingernails-on-chalkboard to us but they do.

**What of digital preservation do you most admire or hope to learn from and apply to analog conservation? (and vice versa)**

**Kevin:** I’m jealous of the presence that the digital preservation community has online and how openly information and resources are shared online. This is especially evident within social media. I guess it makes sense that the community that does digital preservation is more adept or inclined toward digital communication. The analog conservation community, however, is increasing its use of online tools to connect and share information. There are a growing number of really good, regular blogs coming out of institutional departments.

One of the downsides of the digital preservation’s community embrace of sharing information online is there is so much going on that it is hard for someone like me who wants to keep aware of what’s going on and not be overwhelmed.

**Lance:** I greatly admire how trusted our conservators are within the library. Other staff clearly have a good idea of the important role they play and are seen as someone that will “come to the rescue” if something bad happens to the library’s collections. At some point, I hope digital preservation is seen in a similar light.

**What do you think analog conservation has to learn from digital preservation? (and vice versa)**

**Lance:** That is a good question. I think digital preservation has done more of the learning in the relationship between the two. However, I do think the immediate nature of the digital world could provide some wider lessons. We digital preservation people have to be very proactive in our organizations to ensure digital content is created and stored properly. As we all know, the digital world moves so fast that things like file formats could move into obsolescence in a matter of a few years. This requires us to meet with fellow staff members and learn what types of content they are creating and educate them on how to best handle certain types of content.

We also have to do outreach to both internal and external audiences to make sure that people understand threats to digital content. I think that type of proactive engagement and education could be applied in a broader way to things in the analog world.

**Kevin:** A strength of digital preservation is the LOCKSS (Lots of Copies Keeps Stuff Safe) model of many disparately located copies which are in “communication” with each other. This model has some real wisdom that the analog conservation community can continue to learn from. I don’t mean to suggest that the analog conservation community is not already working at a more collaborative network based model, but I think more could be done. I also like how the LOCKSS model helps conceptualize preservation as a collaborative and cooperative responsibility. Ultimately, it is often less about preserving my library’s copy of a book, as it is about preserving the book, or perhaps even more importantly, preserving reasonable access to a book.

Naturally, an enormous hurdle for this model in the analog world is our objects can’t “talk” to each other in an automated fashion the way files can. Information about the condition and status of physical items in a networked environment requires a lot of human intervention.
What is a key concept of digital preservation that you think just doesn’t translate to analog conservation? (and vice versa)

**Lance:** To be honest, I think most of the important digital preservation concepts translate pretty well to the analog world. In fact, I think most of the key digital preservation concepts are direct extensions of preservation in the analog world. Normalization and migration to preservation file formats are like newspaper de-acidification and the use of acid-free paper. Proper digital storage environments and backups are like climate controlled stacks. Virus checking for digital files is like isolating moldy books from the rest of the collections. Applying digital forensic tools to digital content is like conservation work on damaged analog materials. If there is one concept that may not translate well to analog conservation it is that of emulation. Basically, emulation is accessing an old file format on a modern computer using a layer can emulate the old operating system able to run that file format. A great example of successful emulation is video game preservation, where old game cartridges are able to run on modern equipment. I do not think there is a strong relationship between emulation and anything in analog conservation, but folks more versed in the analog world may know of some.

**Kevin:** I still puzzle over the concept of reversibility. It is a cardinal idea within the analog conservation community that any action taken on an object should be able to be undone without causing harm to the object. This emphasis on reversibility is driven by conceptions of originality and authenticity. It is an idea that I have trouble finding a comparable within digital preservation.

That said, the idea of reversibility is not without its questions and controversies. Increasingly, people are recognizing that absolute reversibility is not really possible.
Lance: Kevin brings up a great point on reversibility. Once a digital file is changed, it is pretty much a new thing and our mechanisms to track the consistency of that file, like checksums, will change along with it. That is why in the digital world we are trying to come up with the best ways to document the actions we took on a file. Also, we will preserve the original form of that file when appropriate to ensure we can always go back to that version if needed.

Where should digital preservation/analog conservation fit within a library’s organizational structure?

Kevin: Like all preservation, the work affects and is affected by most other parts of the library. It seems to make sense that conservation is found somewhere within the technical services functions, as this is the area that most deals with the artifactuality of the collection. But, there is also some value in connection conservation to the special collections department. In my current work arrangement, I work right next to, and often with, the staff person who does all processing of new materials and this is a really good fit.

Lance: This is somewhat of a controversial question and a lot of folks have differing opinions. I am biased, because I am located in the library’s preservation and conservation department and love it. Others feel, because of the technical nature of the field, it should be located in more IT or technical branches of the organization. When I go to meetings or work on projects, there are several people who know the technical stuff as well as or better than I do. I think the most important thing I bring is a “preservation” perspective. While others are appropriately focused on implementation and day-to-day issues that arise, I try to take the longer view, asking questions like “what can we do to make sure this is still accessible in 10 years” and “how can we document this so the people will always know the actions we took.” That type of thinking is fostered by me being situated with my preservation colleagues. Also, being together with conservators and book binders means I get awesome handmade cards on my birthday.

Kevin Driedger is Librarian for Conservation and Digitization at the Library of Michigan. He can be contacted at DriedgerK@michigan.gov.

Lance Stuchell is Digital Preservation Librarian at the University of Michigan. He can be contacted at lstuch@umich.edu.