Editorial Board Thoughts: The Promise of Immersive Libraries

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Immersive technologies—interactive 3D graphics, simulation, and gaming technologies—have much to offer higher education by collapsing geography and by providing a richer learning environment.

Over the past forty years, through digitization and Internet services, librarians have brought technology to bear on making it easier to find and use information, even to the point where people can find and use library resources without coming to the library. Information space—the space between user and literature—has been collapsed through digital access.

Now there is potential to collapse the space between users themselves as they work together from different locations. In recent decades, learning has gone from a predominantly independent and competitive process for students to one that makes greater use of collaboration, cooperation, and group study. The library as a place for students and researchers to work individually with their literature has become a collaborative workspace where students work together on research projects and shared class assignments. This presents a challenge to libraries and learning institutions with limited space for students to meet, share ideas, do coursework together, work on joint projects, and practice presentations.

For more than five years, advances in the development of virtual meeting space and workspace have enabled librarians to provide immersive, 3D virtual world services that give a sense of presence that is lacking in conference calls, text chat, and web conferencing.[1] As a result, not only is the individual's physical distance from library materials eliminated, but also the distance is eliminated between individuals who work with each other using library materials.

Immersive technologies offer the promise of 3D virtual world libraries where students and their teachers can work together in virtual space with library materials and tools—search engines, online catalogs, media, text, etc. Students would sit at their computer wherever they are and work together with classmates in a shared environment, using library materials as well as productivity tools—word processor, spreadsheet, web, or blog development software.

This would be a boon for real-world institutions lacking sufficient physical space, but also for distance education and international education. For example, students might study abroad but take a class at their home institution, take classes with classmates at foreign institutions, learn

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languages and experience foreign cultures more directly, or take classes in locales not accessible to professors. And now, with the advent of Massive Open Online Courses, the opportunity lies within the immersive library to serve large numbers of students who have limited or no library facilities. These students would be able to use library resources as well as to communicate and work with classmates, teaching assistants, tutors, and others whose support would be augmented through their virtual presence rather than via email or text chat.

As current research material is born digital, and legacy material is digitized at accelerating rates and is delivered digitally, they are perfect for use in immersive environments. However, immersive library resources are not limited to traditional materials. They include virtual world learning objects and environments, and virtual representations of books—walk-in books or educational simulations—that are interactive experiences with literature.[2] Further, in virtual space, physical research objects can be part of the study environment and be brought into an active relationship with the information resources that pertain to them.

For example, if you were studying 3D models of Mayan pottery in a virtual library workspace, you would have access to historical accounts, conference papers, current periodical articles, photographic archives, dissertations and other material pertinent to your studies. Through this, not only would distance be eliminated between individuals and library materials, but also physical research objects from pottery to architecture, from monuments to molecular models could be represented in virtual space and related to the information that pertains to them.[3] So whether the collaborators are students, teachers, librarians, researchers, we can see a time, even now, when they will no longer be bound by physical workspace.

In addition to the immersive library as repository and collaborative study space, the immersive library can be expected to offer enhanced services to users. For example, immersive information literacy programs, immersive research and course consultations, virtual interlibrary document management, and document delivery are just a few possibilities.

The immersive workspace is a logical setting for instructing students in digital literacy, the evaluation of resources, and the use of information tools. The goal here would be to bring into the immersive environment the rich body of course designs and curriculum materials pertaining to the educated use of information. We know that among the most significant lifelong benefits of higher education are information skills—finding, evaluating, and using information for work or for personal enrichment.

Research and course consultations are further academic services that would be valuable applications in the immersive library. Librarians, library assistants, and docents have all helped individuals in Second Life and OpenSim libraries by providing advice, information, and guidance. These services have further potential in 3D virtual environments through enhancement with photographs, documents and virtual structures. Add to these the tools and resources of the library collaborative workspace, and the potential for student and faculty consultation and advisory

services is even greater. Imagine the PhD candidate or student with a writing assignment in the library space with the librarian and all the tools needed for help with dissertation research.

As immersive libraries realize their potential and grow in number and scale, the challenge of managing them will grow as well. The tools of 3D virtual workspaces hold promise here also to facilitate the work of the library and improve librarian productivity. Librarians work across geographic boundaries regionally and nationally in consortia and multitype systems for resource sharing, collaborative research and development projects, digitization initiatives, staff development programs, and any number of efforts to economize and improve performance. The very management of the library enterprise should benefit from 3D virtual reality tools brought to bear on the day-to-day work and communication of the library.

For any who might want to learn more, the ALA Virtual Communities and Libraries Member Initiative Group maintains an ALA Connect site (http://connect.ala.org/node/66325). Communication on libraries in virtual environments is also available through the ACRL Virtual Worlds Interest Group and its Google Group, ACRLinSL (http://groups.google.com/group/ACRLinSL).

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