Conclusion

Virtual worlds are almost certainly here to stay. The genie is out of the bottle. In some ways, virtual worlds already offer a superior teaching and learning environment, compared to Web-based systems and real-world classrooms. They also serve well as virtual work environments, especially in this era of rising fuel and transportation costs. Many people find virtual worlds to be very engaging entertainment districts, too, whether you want to listen to a live concert; view an immersive, interactive art exhibit; or be shot out of a cannon.

If virtual worlds show real promise as venues for work, play, and learning, they also present great promise for the growth of librarianship and library services. The potential benefits of virtual worlds for librarianship and the end users' experience of information are not just incremental, but revolutionary. If done well, an information environment in a virtual world enables the "users" (we really should call them "experiencers" now) to experience a wide variety of information experiences (from scenes in a novel or play to unusual experiences of the real world—riding in a rocket ship, exploring a molecule in detail, or being immersed in some natural or man-made disaster) in a way that harkens back to the immediacy and impact of the school of hard knocks in the real world, with a breadth and depth of experiences heretofore impossible for the individual human consciousness.

There seem to be at least four basic library service possibilities in virtual worlds:

- First, lamentably, in some particular virutal worlds, there may be no strong library potential. The overall owners (prime movers) may not be interested in having a library presence in their virtual world, the resident avatars may not be interested in using library services, or the principal business of the place (e.g., having fun) may not encourage library use.
- Second, some virtual worlds may have a strong library potential, but the overall owner (prime mover) may want to build, develop, and brand it. The library becomes in essence just another service in the suite of services and experiences offered by the company or organization behind that particular virtual world. Whyville, a virtual world for tweens, for example, seems to be interested in having one library, with a working name of the Whybrary, but not in having multiple libraries that are branded or co-branded in accordance with the real-world libraries that developed them.
- Third, each library and library-related organization—born real, digital, or virtual—that is active in a particular virtual world may be welcome by the prime mover and the resident avatars to design, build, and operate its own library space and services. This seems to be the basic situation in Second Life, where individually and collaboratively a number of real-world libraries are developing libraries and library services.
- Fourth, various library-related organizations in a particular virtual world may collaborate to offer library services. One basic goal of these early collaborative efforts is to avoid the balkanization of library districts and services that has happened in the real world. In some virtual worlds, the basic operational attitude seems to be: "Let's assume that one library is sufficient to meet the information needs of the resident avatars until such time as we perceive that multiple 'specialized' libraries are needed."

If you accept the argument put forward in this report that there are now three types of librarianship (real, also known as bricks and mortar; online, primarily via the Web at the moment; and in world), this question arises: Is this a zero-sum game? If VW libraries and librarianship gain in

popularity, does that necessarily mean that real-world and Web-based libraries will decline in popularity? After all, collectively we have only so much attention to pay to all information systems and environments collectively.

Virtual worlds probably will not change human nature much, but they will change how we experience and interact with information. Just as the digital revolution changed how we store, distribute, and interact with information (we're still coming to grips, in an intellectual property sense, with the basic fact that digital documents can be easily, perfectly, infinitely replicated and distributed quickly and cheaply), so too the basic affordances of information experiences in virtual worlds will have some profound and far-reaching effects on how libraries operate and how library users experience information.

In the early years of the human experience on earth, information was experienced in the real world—the proverbial school of hard knocks. Weather, various threats to life and limb, and the pleasures of this world were all experienced firsthand. It was a simple but effective information system, and, of course, it continues to this day. The principal problem with the school of hard knocks as an information system is that it has a limited curriculum. If, for example, you were born into the world as an endomorphic male and wanted to experience firsthand what it feels like to be an ectomorphic female, the information realm of direct real-world experiences offered little insight or solace.

So we humans created language and all that language entails—including libraries—to overcome the inherent limitations of the real-world school of hard knocks. We became capable of ecstasies, a standing outside of one's self to gain a different set of experiences and perspectives. The novel evolved as a high form of ecstatic narrative, in the sense that, when you are reading a novel, you "enter the experiential realm" of the characters in the novel.

These print-based ecstatic experiences are great, but as experiences they tend to be two-dimensional and monosensical. We read with your eyes (or listen to an audiobook with our ears, or read Braille via the sense of touch), then imagine an entire three-dimensional world. Virtual worlds have the capacity and promise to put the ecstatic knowledge experience that we all know and love through books back into a three-dimensional virtual environment. Rather than read about and empathize with Juliet and her star-crossed love for Romeo, people now can create a Juliet-type avatar and try to emulate her experiences in a VW environment. On Renaissance Island in Second Life, you even could create a avatar representing an Elizabethan actor (probably a young male) playing the role of Juliet in Shakespeare's play, then ply your trade on the boards of the stage of the Globe Theater.

The three-dimensional ecstatic experience in virtual worlds may be a new way to learn and ingest information, which harkens back to the original school of hard knocks while incorporating the best of print-based learning and information ingestion. Real-world schools and libraries, which emerged and evolved in the realm of print-based learning ("book larnin'"), may have a difficult time adapting to the possibilities and affordances of VW ecstatic learning.

Each library and library-related organization will need to develop its own time frame and organizational process for exploring VW librarianship, but no organization can ignore this exciting and interesting new strain of librarianship. Just as in bygone times, all libraries eventually had a take a stance and develop a program or system around the upstart notions of reference service, nonbook formats, the online catalog, the Web, and a host of other challenging opportunities, eventually all libraries will need to pay attention to, take a position regarding, and develop a presence in virtual worlds.

Graduate Library School Activities in Virtual Worlds

Higher education in the United States, higher and further education in the United Kingdom, and higher education in other nations of the real world have shown considerable interest in VW higher education, perhaps because a virtual world combines the best elements of real-world higher education (e.g., the sense of a campus-based learning community, plus all the extracurricular activities and opportunities for interaction that a campus affords) with the efficiencies, convenience, and frugality of Web-based higher education. Many college courses across many disciplines now are being taught primarily or exclusively in virtual worlds.

Several graduate schools of library and information science already are active in one or more virtual worlds. For example, the San José State University School of Library and Information Science offers for-credit courses in Second Life, as does the University of Texas at Austin. The Graduate School of Library and Information Science at the University of Illinois at Urbana-Champaign has offered noncredit courses for several semesters now. The Information School at the University of Washington is creating a certificate program in virtual world building. Students in the first course in the program, being taught during the fall semester of 2008 by Randy Hinrichs, the CEO of 2b3d, will examine and explore in depth three VW learning platforms: Forterra, Protosphere, and Second Life. Other graduate schools of library and information science are offering or planning to offer courses in virtual worlds, too.