W(h)ither Libraries?

The Future of Libraries, Part 2

Bonnie A. Osif

The future ain't what it used to be.

-Yogi Berra¹

We need not stumble backward into the future casting longing glances at what used to be; we can turn around and face a changed reality. It is, after all, a safer posture if you want to keep moving.

-Charles Handv²

Mention Star Trek's Borg or Doctor Who's Cybermen to almost any science fiction fan and you will see a distinct reaction. Or, you can refer to those dreadful last few minutes of Star Wars, Episode III: Revenge of the Sith where we see the helmet put on what is left of the human Anakin Skywalker. The idea of being less human and more machine is chilling to most people. These visions of mankind's future posit a human-machine interface that would allow the human access to vast amounts of information, enhanced computing power, easy communication, and more, but the cost might be some degree of freedom of thought, autonomy, maybe our humanity itself. In the novel Snow Crash, we see the first use of the word "avatar," Neal Stephenson's term for virtual people in his metaverse, an Internet-like world. We're already partly in that world now. Many librarians are now "working" in Second Life. The Ms. Dewey search engine has a very human cyberlibrarian answering questions. Actually, there are librarians who now have "cybrarian" as their official title.

We're constantly hearing about the new library. Are we really only at Library 2.0? Might we not realistically consider ourselves at least at Library 4.0? One way of looking at the evolution of libraries could be: 1.0 monks transcribing manuscripts, 2.0 printing press, 3.0 OPACs and mediated searching, 4.0 now, and 5.0 all of us with Bluetooth in our ears and voice recognition access to massive, integrated databases.



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In the previous column, we looked back to the 1950s and '60s to see what writers were saying about our future, as well as some of the more recent prognostications. Science fiction writers have shown us possible futures that range from absurd, preposterous, and comic to the frighteningly accurate and the realistically possible. So too have library futures spread across wide possibilities. The resources that follow offer many more interpretations, considered opinions, and guesses to review.

Organizing for Change: The Need for the Learning Organization

In 1883, R. R. Bowker said librarians

classify and catalogue the records as ascertained knowledge, the literature of the whole past, and so bring the books to readers and readers to books. He is the merchant, the middle man, of thought, and performs in this field the function which political economy recognizes as so important, of bringing goods to the place where they are wanted and so, also, creating demand. . . . The librarian makes time for his fellow mortals by saving it; for a minute saved is a minute added. And the function of organizing, of indexing, of timesaving and thought-saving, is associated peculiarly with the librarian of the nineteenth century.³

While so much has changed in the more than 120 years since these words were written, so much is still true today. And more importantly, those minutes saved, that organization and middle person, or broker of quality, appropriate information is even more critical in our rushed, information-flooded world.

We believe in libraries. We believe in the enduring mission of libraries. We believe that libraries and librarianship have a future and that future is there to be seized by those with insight, realism, and,

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yes, daring. This set of beliefs is rooted in practicality and progressivism. Clinging to the past for the sake of the past is as futile as sweeping away the past for the sake of a delusionary future. We advocate a straight and narrow path between the librarianship of nostalgia and the ill-informed embrace of any technology that happens to capture the magpie fancy of the moment.⁴

So begins Crawford and Gorman's excellent book, *Future Libraries*.

Crawford and Gorman make a clear case for the importance of going beyond just information because it has "no enduring meaning unless the information so acquired is fitted into an intelligible structure of knowledge." Librarians now have evolved into a more central, integrated role in the information cycle than many ever imagined.

Most librarians have studied S. R. Ranganathan's five laws:

- 1. books are for use;
- 2. books are for all, or, every reader his book;
- 3. every book its reader:
- 4. save the time of the reader; and
- 5. the library is a growing organism.

Crawford and Gorman write five new laws of library science:

- 1. libraries serve humanity;
- respect all forms by which knowledge is communicated;
- use technology intelligently to enhance service;
- 4. protect free access to knowledge; and
- 5. honor the past and create the future.⁶

This is a very insightful view of the new librarianship, especially in its role in creating the future. There is nothing passive about the profession, and the early adoption as well as possible creation of the new technologies are cornerstones of the field. Librarians have shown leadership in many technological areas, as well as a number of social aspects of the information world. However, this is not a casual process. Careful consideration is essential for successful implementation. The chapter "The Madness of Technolust" is especially recommended reading. Their somewhat harsh view of technology is fascinating when read with consideration to their fifth new law to create the future. They note the popular notion that the new is always to be desired, but often with little investigation or evaluation. They write "technojunkies are free to spend their own resources, but any urging that libraries or other institutions should support their habits at the expense of the disadvantaged and the broader society should be resisted."7 Read and carefully consider their insight. You might find yourself doing a 180-degree turn or at least carefully considering decisions and unexamined preconceptions.

Thomas Frey's Web article made the rounds on a least one discussion list and created quite a stir. He states, "We have transitioned from a time where information was scarce and precious to today where information is vast and readily available, and in many cases, free." He also notes, "Books are a technology, and writing is also a technology, and every technology has a limited lifespan." But are libraries and librarians a technology or are they actually the users and innovators of technology? There is a world of difference in the future of these two options. Technology has always had a limited lifespan before it is superseded and tossed away. But users innovate, evolve, and lead. They are never overtaken and passed. The reader can determine for themselves what roles libraries and librarians have.

Frey discusses trends in communication systems that change the way people get information, the limited life of technology, the increase in storage capacity, the increasing complexity of searching, our faster lifestyles, the increased changes in society, the exponential growth in the demand for information, increasing globalization, the move to an experience-based economy, and that "libraries will transition from a center of information to a center of culture." To accomplish this transition, libraries need to survey their users and community, become the experts in the new technologies, expand their role as archivists of their entire cultural memory, and be more creative with space. This short Web article provides a wealth of things to consider, argue over, and possibly enact.

Envisioning the Future: The Need for a Shared Vision

If you are somewhat confused about the future of libraries, you are in good company. Coyle summarizes a number of prognostications in her interesting and succinct article. What most people correctly predicted includes the role of technology in storage of information, networking, hypertext, and so on. What they seem to have gotten wrong includes intellectual property issues, need for intermediaries, and the iniquitousness of computers. One of the facts she considers wishful thinking is from Frederick Kilgour who wrote in 1984, "Libraries as we now know them will diminish in usefulness. The function of librarians, as distinct from libraries, will, however, almost certainly enlarge intellectually as well as usefully."

The following words introduce the executive summary of Chad and Miller's white paper on the challenges facing modern libraries. "The library's information provider crown is slipping. Justifiably or not, today libraries are increasingly viewed as outdated, with modern, Internet-based services, such as Amazon and Google, looking set to inherit the throne." ¹² There are familiar challenges such as Amazon, Google, and changing technologies, suggest that

libraries need to become more visible and provide additional services for their users. "With Library 2.0, a library will continue to develop and deploy the rich descriptive standards of the domain, whilst embracing more participative approaches that encourage interaction with and the formation of communities of interest." The Chad and Miller paper shows how using new technologies, breaking down some barriers, and having a "can do" attitude results in a Library 2.0 that "ensures that information resources managed by the library are available at the point of need, and that barriers to use are minimized." Some of the characteristics that they use to describe Library 2.0 include collaboration and flexibility.

Troll provides a discourse on the useful, quantitative measurement of library activities. 15 While libraries historically have gathered a great quantity of statistics, their usefulness can be questioned. As we move to the library of the future, this problem becomes even more complex. She notes there is an "absence of standard definitions and procedures for gathering and interpreting reliable information that would enable us to document and to explaining shifting patterns."16 Data are gathered because it has always been done, not because doing so is meaningful. The need now is to be able to "explain to university and college administrators how and why libraries are changing, demonstrate that our efforts contribute substantially and cost-effectively to the mission of the institution, and engage them in planning support for our future position on campus."17 Budgets, staff, equipment, collections, and space all must be considered and documented beyond traditional measures. For example: What is the effect of collections and services on patrons? What are the costbenefit analyses showing? What do patrons value, and what benefits can be shown? This very interesting article raises very important questions and can be considered a must read.

The "Library as Place" and the "Information Commons" have become popular buzz phrases. MacWhinnie provides a nice summary of these and more aspects of the future of libraries. She notes changes that include cooperative learning, need for study space, increased use and number of software programs, assistance for these programs, and a more integrated delivery of research and writing assistance. After this review, she provides information on how several libraries have put these changes into practice. This includes summaries of mission statements, citations and links to primary documents, and planning and funding information. Issues that need to be addressed are reviewed, including staffing, training, funding, and buy-in.

Billing's article is both a summary of new technologies and initiatives and a review of some of his ideas of the library of the not-too-distant future of 2013. He uses two terms from the jargon of evolutionary sciences to explain his vision. *Punctuations* are dramatic occurrences that increase the speed of change. *Wildcards*, unexpected but highly influential, "will be introduced into the evolutionary

growth of the academic library, some perhaps harmful, but more likely enabling libraries to provide even richer information resources and better services than they do today."²⁰ This article may make you think about the future of libraries in a very different way.

"Should we fail to take the mutations of our environment into account, we will relegate our libraries to obsolescence." With these words Cassell and Hiremath present a lot to think about. "The Future of Reference" is a very short article based on part of their book *Reference and Information Services in the 21st Century.* They note that libraries are evolving with the times, but their main strength is that "the personal aspect of the library's service will continue to distinguish it from other institutions and will separate it from its competition and fill the needs of its users." This is very encouraging reading for those concerned about reference services.

Crawford's article is definitely worth reading.²³ He provides a long review of the concepts of Library 2.0., and how they improve the current library and move it forward. However, "Library 2.0" derides "today's library as irrelevant and today's librarians as rigid and unchanging" and is confrontational.²⁴ Especially interesting is a fast reading of the sixty-two views of Library 2.0 and the definitions that include "reflects a transition within the library world in the way the services are delivered to library users"; "sees the reality of current user-base and says, 'not good enough, we can reach more people'"; "a service philosophy, seeks to harvest good ideas from outside and use them to deliver improved and new services"; "making your library's space (virtual and physical) more interactive, collaborative and driven by community needs," etc.²⁵

After considering the comments by more than two dozen librarians, he writes "Library 2.0 encompasses a range of new and not-so-new software methodologies . . . that can and will be useful for many libraries in providing new services and making existing services available in new and interesting ways." At the same time, "Library 2.0' is hype, bandwagon, a confrontation, a negative assertion about existing libraries, their viability, their relevance, and their lack of changes . . . so important that every library, no matter how small, *must* be discussing it right now, and that every library association should be focusing its next conference on the Movement." 26

Anderson does not mince words in his critique of the library world's response to threats from the likes of Google and Yahoo! He states, "For libraries in the twenty-first century, the situation is dire. The library as we know it was designed to meet the needs of a society whose chief information problem was one of scarcity. . . . The defining characteristic of today's information world is not one of scarcity, but of glut." Agree or not with his descriptions of the library of the past and present, this easy-to-read article will make you think, and maybe argue with its premises.

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Toward the Information Future: Libraries as Knowledge Bases

Recognizing the crucial importance of data and the critical need to preserve this information, the National Science Board, the governing board for the National Science Foundation (NSF), published a draft of their report on digital data collections on the Web.²⁸ There is a need to develop a clear technical and financial strategy, including support, review, and management, and to create policy consistent with this strategy. This would necessitate NSF evaluation of a data management section in all proposals; review of collection structure; technical standards and processes for data creation; ontology development; peer review and training; and "should act to develop and mature the career path for data scientists and to ensure that the research enterprise includes a sufficient number of high-quality data scientists."²⁹

The conclusion clearly states the importance of data:

The existence of a new data collection can effectively serve as new phenomena to study. Such phenomena are equally accessible to study at all levels, by teams of scientists or by an individual investigator with a computer and Internet access. In addition, digital data collections serve as an instrument for performing analysis with accuracy that was not previously possible or, by combining information in new ways, from a perspective that was previously inaccessible. Data collections that are genuinely accessible by nonexperts provide open windows into science and engineering that can be used at all ages and all levels of education. Full realization of the exciting opportunities created by digital data collections requires the development of policies and strategies that are robust, responsible, and responsive.³⁰

Digital resources are growing in importance to libraries, and the concept is growing in importance as we move to the library of the future. Some see data collection, organization, and preservation as the major roles of the future library. Recognition of this by the NSF is critical so a careful review of this report is recommended.

Scrogham makes a heartfelt argument for the value of public libraries and librarians, basing his argument on their traditional role as a place to read, find resources, and obtain reference assistance.³¹ As a different look at the future, this perspective might be a great discussion starter at a brown bag lunch. By contrast, Whitlatch concludes her article with the note that "significant changes in our culture and professional competencies" will be needed to keep reference an important service.³² She provides several scenarios for future reference: outsourced services, literal e-librarians (like something from science fiction), or knowledge counseling in which "real libraries and therefore real

reference librarians will continue to exist and to focus their services on their primary clientele in a geographic area."³³ She supports the use of total quality management principles—focus on the customer, quality work the first time, strategic holistic approach to improvement, continuous improvement, mutual respect, and teamwork—as a means to design and maintain quality reference services. She makes an importance point in this time of a migration to Google to answer questions.

Hannah and Harris wrote an almost decade-old book that looks at the future of libraries, but is still worth reading.34 They write that librarians can't just "walk away from the book-filled buildings and set themselves up as information brokers, selling digital information to clients in the private sector."35 However, the information landscape has changed and "we must be certain that information technologies, electronic writing, and postindustrial communication systems will be effectively deployed by a profession with a 3,000-year history of commitment to the responsible collection, preservation, and effective organization of materials for civilization's racial memory . . . To suggest that such a transition will be effortless and without risk is irresponsible and unprofessional."36 They also make it clear that transitions in libraries are shared by many institutions, but librarians are very capable of seeing these issues, finding solutions and ideas outside the library, and using these to benefit libraries. Much of what is envisioned or speculated on has happened but some organizational visions still need to be realized. The book provides a way of looking at issues that can be adapted for efficient and effective use. It is also very interesting to see how far we've come in such a short time.

Paradise Lost or Paradigm Found?

Betsy Wilson, dean of the University of Washington Libraries, gave a talk at Berkeley titled, "Betsy Wilson's Crystal Ball: New Directions for Libraries." In this fascinating talk she uses a look back at the founding of the University of Washington's library and its cathedral of books as a spring-board to a discussion of the many changes in the library. Wilson states that librarians are not "victims of fads." Instead, they are creators and innovators of technology. While the mission of the library is the same with selection, organization, preservation and dissemination at the core, the tactics have changed. Some of the things the library of the future must consider include increased assessment and the move toward a true global library.

A website at the University of Texas links to presentations made by James Duderstadt, John Unsworth, Clifford Lynch, Betsy Wilson, and others at the Research Library of the 21st Century Symposium held at that institution in September 2006.³⁸ There is a link to transcripts of the presentations as well as audio links. Everyone will be challenged by the ideas presented at this symposium.

While we all would hope our words will be "immortal," it doesn't take long to realize that many of our words will become rapidly dated. In one sense, writings on the "future" are outdated as soon as they are published. On the other hand, so much that has been written can still provide guidance and new ideas to consider. We do constantly adapt, evolve, and reinvent ourselves and our library environment. We interact with constantly changing technologies, user populations, and user needs and expectations. This constant change is one of the joys and challenges of the profession.

Will we all be avatars in the future, providing reference in a virtual world? Will we each have our fifteen minutes of fame on YouTube? Who will have the most friends on MySpace or Facebook? How will we answer reference questions? Will everything be reduced to text message abbreviations using Meebo? Or, will we be using something that we librarians haven't even heard of yet? None of us know for sure, but it is a very safe bet that it will be a fascinating future.

Author's Note: Bold headings are taken from the table of contents in Stan A. Hannah and Michael H. Harris Inventing the Future: Information Services for a New Millenium (Stamford, Conn.: Ablex, 1999).

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