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Academic Libraries in Transition: Current Trends, Future Prospects

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Abstract

Academic libraries are in transition because of changes in the context of higher education. Changes in the world of information are even more radical: the displacement of paper, the primacy of the search engine, the emergence of the digital lifestyle, and innovative patterns of scholarly communication. Decreasing reliance on local collections is transforming the library as a physical destination. Traditional measures of library success have begun to be replaced. Given the superiority of other information professionals' data management skills, the role of academic librarians will shift toward the enablement of learning. This environment of upheaval will pose both opportunities and challenges for academic librarians.

Authoring an article on the transformation of the academic library is a daunting task for at least three reasons. First, the literature on the subject is extensive, defying one's ability to gain a comprehensive understanding of the issues. Relevant information comes not only from the field of library science, but also from higher education, information technology, and other realms.

Second, the radical changes taking place within the information environment seem to preclude any sort of accuracy in predicting the future of the academic library. According to Billings (2003), the notion that academic library development will proceed steadily along its current trajectory is unfounded; instead, unanticipated influences will dramatically alter the evolution of the academic library, frustrating any attempt to forecast with certainty its future state. *The 2003 OCLC Environmental Scan* thus advises in its introductory paragraphs, "Let us accept, then, that change is profound, accelerating, transforming and unpredictable. And let us also accept that, absent the talents of the Oracle of Delphi, any person or organization is unlikely to be able to make meaningful predictions that are helpful for charting directions for an indefinable future" (De Rosa & Dempsey, 2004, p. 1).

Third, current trends imply future prospects that are unsettling to many librarians, at the very least promising to bring about radical change in the nature of our duties, and possibly even threatening the future of our profession. According to De Rosa and Dempsey (2004), "There is a subdued sense of having lost control of what used to be a tidy, well-defined universe evident among those who work in this information environment" (p. 2). Crowley (2001) observes that "every so often a changing context so threatens a profession that the profession is forced to revisit issues thought settled long ago. At such times, the conventional wisdom tied to the accepted values of a given group often fails to provide answers to critical questions" (p. 569).

Taking these considerations into account, I must state that I am not comfortable with all of the prospective changes described in the article, nor am I convinced that all current trends will lead to a better future. However, I am confident that the trends to be discussed will impact academic libraries significantly and need to be responded to deliberately.

The Context of Higher Education

An academic library is not an end in itself, but a means to an end—namely, that of fulfilling a postsecondary institution's mission. "More than any other campus enterprise, the library symbolizes the distinct characteristics of the university and its mission across all disciplines: to develop the human intellect through teaching and learning and to contribute through research to the expanding body of

human knowledge" (Wand, 2005, p. 4). Accordingly, it is most appropriate to begin this analysis of the future of academic libraries with a discussion of the context in which they operate.

Guskin & Marcy (2003) describe the historic assumptions of postsecondary education as follows:

> Established organizational structures and processes for higher education were built to educate and support residential, traditional-aged students drawn from relatively homogeneous backgrounds whose prior education prepared them to attend college in a pre-technology-based learning environment. Faculty members were the primary instruments for imparting knowledge and skills, and individual classrooms remained the province of individual faculty members—who were also solely responsible for evaluating student performance. Completing a bachelor's degree in this setting is determined by the accumulation of individual classroom credits, assessed by discrete faculty members through the traditional grading process. (p. 18)

Such assumptions are no longer valid. Over the last few decades the environment has changed significantly, leading Dede (2005) to muse,

> If civilization were to invent higher education today, rather than centuries ago, would we create campuses as they now exist, dominated by lecture rooms, libraries, and labs, with learning centered in fixed time blocks? I suspect instead we would design colleges and universities to distribute their activities broadly across geography and time, focusing on active construction of knowledge rather than assimilative incorporation of information. We now have the technological infrastructure to facilitate a reinvention of our historic approach, as well as promising models from many other sectors of civilization that have already reinvented their missions and organizational structures based on the capabilities of information technology. (p. 11)

Changes in the higher education context can first be seen in the demographics of the *students* who are attracted to our institutions. Today's university students are more ethnically and racially diverse than in the past. Increasing numbers attend college, many inadequately prepared for rigorous academic work. Non-traditional students—many with children—continue to seek out college degrees in order to

enhance their economic opportunities. Students of typical college-going age—the millennials—share traits that are foreign to older generations: high parental involvement, facility for technology-assisted communication, preference for group study, misunderstanding of intellectual property, and proclivity toward on-line transactions (Farrell, 2005).

The *faculty* is changing as well. Institutions are employing more part-time and adjunct professors, leading to a faster rotation of instructional personnel. Even the duties of the professor may be subject to change: "Reconsidering how faculty work in the context of new technologies and the roles of other campus professionals leads us to conceive of new roles for faculty members themselves. Instead of the standard lecture-discussion teaching format, faculty members may engage in a diverse array of roles, including mentor, intensive discussion leader, lecturer for short periods of time, and assessor of student mastery" (Guskin & Marcy, 2003, p. 17).

The *economics* of higher education represent an area of particular volatility. Costs are rising while government support is diminishing, shifting the burden of funding to students and extramural sources (Farrell, 2005, pp. 131-132). "Simply stated, costs are continuing to escalate beyond our ability to generate tuition and fund-raising revenues to cover them" (Guskin & Marcy, 2003, p. 12). Not surprisingly, "parents and students are approaching higher education with a new consumer mentality, a perspective prizing low cost, high quality, and convenience" (Crowley, 2001, p. 570). Left unchecked, these trends could spell disaster for the quality of higher education and, by implication, academic libraries.

Delivery methods have evolved significantly, due largely to the development of new information and communication technologies. Accordingly, the growth of distance education is eclipsing that of residential education. Guskin and Marcy (2003) argue that improving "the quality of faculty work life and student learning" necessitates "an educational delivery system that is built fundamentally upon the principle of recognizing and certifying student learning outcomes, wherever or however the learning occurs. The implicit assumption embedded in this approach is that the key productivity issue is not about how much faculty teach, but about how much students learn" (p. 16).

In the midst of these changes, colleges and universities have entered an era of greater *accountability*—to students and their parents, to government and other funding sources, and to accrediting bodies. The implications of this environment for academic libraries will be addressed in a separate section below.

Colleges and universities are, to a significant degree, in a state of crisis—caught between reverence for tradition and society's expectations of modernization. The strained context of higher education affects academic libraries profoundly. But another context, the information revolution, impacts them even more.

Patterns of Information Exchange

The Displacement of Paper

The word *library* derives from the Latin *librarium*, a derivative of *liber*, meaning "book." Viewed etymologically and historically, the library is a collection of bound paper volumes. Ironically, the developments of the past 25 years have rendered this characterization imprecise and, to a significant extent, inaccurate. Today's academic libraries disseminate information to their patrons very differently than they did a generation ago. In fact, it is possible to identify at least eight ways in which academic libraries have shifted away from amassing collections of paper-based monographs.

From analog to digital formats. Every major category of information-bearing media—text, image, audio, and video—has become increasingly available in digital form over the last 10 years. Digital distribution already has a proven track record among serial publications, reference sources, and government documents. While the economics of copyright and the limitations of display technology have delayed the adoption of e-books, use statistics and user feedback at the author's library suggest that college students are accepting them with increasing enthusiasm.

From books to journals and other media. While books continue to be published in abundance, the center of discourse in many academic disciplines has shifted to the medium of the scholarly journal. In addition, the volume of non-textual media available

for acquisition or access is expanding. According to Hazen (2000), "Print publications show no sign of disappearing . . . . Nonetheless, print collections are losing their one time preeminence relative to library holdings in other media. Shared resources and remote digital products are likewise reducing libraries' reliance on in-house collections. Book-based bibliographers are already pretty much obsolete in some natural sciences, and those servicing many other fields are eventually likely to follow suit" (p. 838).

From highly accessible on-site storage to compact storage, whether on or off site. Libraries have historically allocated prime space to the storage of their physical collections, sometimes at the expense of reading and study space. Given the shift toward on-line research over the last decade, it comes as no surprise that many academic libraries are replacing their high-availability stacks with denser forms of storage, whether on the premises of the library or elsewhere (Freeman, 2005, p. 8; Shill & Tonner, 2004, pp. 140-142).

From local storage to remote access. An increasing proportion of the information purveyed by the typical academic library is not housed within the library building, but is accessed from off-site servers. Symposium 2010 participants envisioned a future in which "much content is leased by the library which links the user to the information stored at remote locations. Vendors own some of it and some is owned collectively by libraries cooperating in consortia where the archiving of the retrospective cultural heritage is the responsibility of a few libraries who agree to make it available to others in perpetuity" (Wand, 2005, p. 5).

From local ownership to subscription-based access. As noted above, most libraries have relinquished responsibility for data storage to a significant extent. In addition, they often access remote databases via term-based licensing, an economic model that is antithetical to the historic concept of local library ownership.

From selection of individual items to selection of resources in the aggregate. As libraries have transitioned from developing local collections of books and media to the licensing of digital content available from vendors, they have often agreed to select predefined aggregations of full-text journals, e-books, on-line reference works, and other resources.

To varying degrees, professional librarians have conceded one of their primary functions: the selection of individual book, journal, and media titles to meet the specific needs of their users.

From library-specific collection development to group-based resource-sharing. Until recently, academic libraries made collection development decisions with a fair degree of autonomy. The most cooperative among us negotiated with other institutions to build areas of collection strength that were complementary rather than duplicative. However, the emergence of numerous library consortia has led to the sharing of resources among groups of libraries. Such sharing is most notably seen in consortial database licensing, but has also been implemented in the form of depository libraries serving multiple institutions.

From active acquisition of grey literature to free access via the Web. According to Mathews (2004), grey literature "is commonly defined as any documentary material that is not commercially published and is typically composed of technical reports, working papers, business documents, and conference proceedings" (¶ 1). It is produced by organizations whose primary role is something other than publishing (Weintraub, n.d., ¶ 1). In the pre-Web era such literature was difficult to identify and acquire, so academic libraries either neglected it or expended significant effort to collect it. However, many non-profit organizations, educational institutions, government bodies, and other entities now disseminate information to interested parties via freely accessible Web sites. As a result, researchers can access the content as their needs dictate, and libraries play a less vital role in making it accessible—a significant shift (Weintraub, n.d.; Mathews, 2004).

Taken collectively, these changes argue convincingly that academic libraries are not what they were in recent memory. After a long-standing reign, paper has been displaced as the primary means of information exchange. Of course, libraries will continue to preserve information on paper for the foreseeable future. Christian college libraries may do so longer than their secular counterparts if Christian literature is slow to appear in digital form—whether because certain publishers cling fervently to paper-based distribution, or because mass digitization projects fail to target many Christian publications. Nevertheless, while libraries will provide access to

legacy paper collections for a long time to come, digital distribution will increasingly dominate the information industry.

The academic community is experiencing the fulfillment of a phenomenon that Clifford Lynch anticipated nearly a decade ago: "Now that we are starting to see, in libraries, full-text showing up online, I think we are very shortly going to cross a sort of a critical mass boundary where those publications that are not instantly available in full-text will become kind of second-rate in a sense, not because their quality is low, but just because people will prefer the accessibility of things they can get right away. They will become much less visible to the reader community" (Educom Review Staff, 1997). The accuracy of Lynch's observation is confirmed even in this article's bibliography, which is comprised mostly of journal articles and other sources available in electronic form, some of which were chosen over less conveniently accessible print materials.

The Primacy of the Search Engine

Related to the displacement of paper is the emergence of on-line search engines that, in about a decade, have replaced library catalogs and other bibliographic tools as the most common places to begin looking for information. With the launch of Google Scholar in November 2004, the search engine industry made a concerted effort to penetrate the world of scholarly research.

One has to look no further than trends in the advertising industry in order to understand the significance of on-line search in today's economy. Gross reported in mid-2005 that television, magazine, and newspaper advertising were in decline, while Internet advertising—tied largely to search engines—was expected to increase by 15% over the previous year (¶ 2).

Search engines are beginning to move beyond the scope of static, freely accessible Web pages into what is sometimes referred to as the "deep Web." The deep Web is a vast array of information located in on-line databases whose content is only served up in response to a searcher's query (e.g., WorldCat records). Formerly invisible to search engines, some deep Web sites are now searchable along with the

Web's static content. Search engines increasingly provide links to deep Web content that is available for a fee (e.g., from document delivery services). Google and its competitors have established themselves within the search market and are unlikely to be challenged by database vendors traditionally associated with library research (EBSCO, ProQuest, Gale, etc.). Rather, several library-oriented companies have already announced partnerships with Google. This trend is likely to continue, enabling standard Internet search engines to provide pathways into proprietary database content.

Within the last 18 months a number of world-class technology companies and libraries have announced their intent to launch several ambitious digitization projects (e.g., Open Content Alliance, Google Book Search, World Digital Library). The indexing of the resulting files by search engines will only serve to strengthen their identity as the tool of choice for research. Furthermore, libraries will face increasing competition from innovative corporations who provide digital information directly to the consumer, whether via subscription (e.g., Questia) or on a pay-per-page basis (e.g., Amazon Pages).

All of this serves to indicate that the search engines are a force that libraries (yes, even academic libraries) must acknowledge. Librarians seem to be waking up to this fact, as evidenced by the coverage Google received in *American Libraries* during 2005. Of course, librarians' opinions of search engines run a wide gamut. On the one hand, Caufield (2005) argues that Google's success is partially attributable to its adoption of traditional library values such as the facilitation of access to information—through simple interfaces, with relative lack of bias vis-à-vis content. On the other hand, authors such as Bell (2005) and Mann (2005) view Google as antithetical to the intelligent subject analysis and information literacy instruction that are arguably essential to librarianship. And Stewart (2006) argues that searching the full text of books may prove detrimental to theological scholarship, which requires deep, contextual reflection.

Libraries' potential responses to Google and other search engines are analogous to the various ways that professing Christians relate to their cultural milieu, as construed in Niebuhr's (1951) *Christ and Culture*.

- The library above Google: ignore Google, even if this results in irrelevance to users

- Google as the library: concede to Google's identity as the ultimate library

- The library against Google: criticize Google for its shortcomings and oppose it for distracting users from the superior quality of the library

- The library and Google as awkward relatives: coexist in the same space with Google, yet never resolve the tension between it and the library

- The library the transformer of Google: influence Google to make it more library-oriented; make authoritative resources searchable through Google

The Emergence of the Digital Lifestyle

The continuous proliferation of digital content described in the previous section will doubtless affect society in ways we can hardly anticipate.

> It goes without saying that the economic impact of the e-book on publishers and booksellers will be dramatic . . . . But I'm more interested in how the e-book will affect the way we read—and write. New technologies, after all, change art, often in profound and unpredictable ways. I doubt the inventor of the electric guitar foresaw Jimi Hendrix, any more than Thomas Edison foresaw chick flicks. The only thing of which you can be certain is that the existence of the e-book will cause the authors of the 21st century to go about their business very differently than did their 20th-century predecessors. (Teachout, 2006, ¶ 7)

Digital networks, both wired and wireless, now make it possible for citizens of technologically advanced nations to conduct many life functions—including work, entertainment, education, and social relationships—virtually anywhere. As a result, traditional means of interacting with people and ideas, including some functions historically carried out within library buildings, are subject to transformation (Mitchell, 2005). Implications of these changes for the library as place are significant, and will be addressed in a separate section below. This section will discuss the emergence of the digital lifestyle, a way of life that is made possible by the

abundance of digital media, the pervasiveness of advanced communication networks, and the emergence of increasingly portable electronic devices (Barna Group, 2006).

Different people—and groups thereof—participate in the digital lifestyle to varying degrees. Citizens of highly developed nations increasingly conduct life through the mediation of information technology. Download services, blogs, instant messaging, podcasting, on-line financial transactions, video on demand, Internet-based telephone service, RSS, PDAs, computer desktop search software, and text messaging are all manifestations of the digital lifestyle. High school and college students interact more freely with such technologies than most librarians—despite our training as information professionals. In fact, the technologies are largely transparent to them; they are simply a part of how their world works.

The Horizon Report (2006) projects that social computing and personal broadcasting will achieve significant impact on higher education within one year or less; that high-function mobile phones and educational gaming will achieve this status in two to three years; and that within four or five years, augmented reality, enhanced visualization, and context-aware systems will shape teaching and learning at the postsecondary level. The fact is that technological innovation is accelerating. The students who will come to our campuses—or perhaps only interact with us from a distance—within the next five years will expect their college experience to be digitally-enabled.

Whether we like it or not, our current and prospective students are accustomed to using simple, intuitive Web interfaces to secure information for themselves (De Rosa & Dempsey, 2004, p. 4). Academic libraries are unlikely to defy this trend. Our patrons expect to retrieve and manipulate information without the mediation of the library staff (Campbell, 2006, pp. 22, 24). In light of our users' behavior, we should aim to develop a Web presence that facilitates self-service. To do so we will need to partner with highly innovative software developers and on-line service providers. Our suite of tools may include the following:

- A knowledge base that allows users to search and browse for answers to frequently asked questions about the library

- Information literacy instruction disseminated through blogs, podcasts, Web-based tutorials, and other popular distribution channels

- Research advisory tools that mimic some of the interaction that takes place in a reference interview

- Federated search functions that provide a bird's-eye view of the databases that may provide the answer to a user's query

- Link resolvers that make the path from citation to full text as direct as possible

- Library catalogs that incorporate the best features of on-line bookseller sites and search engines

- Catalog enrichment services that provide a rich array of information—tables of contents, reviews, cover images, and more—about materials on our shelves

- Portal and alert services that actively push content to end users based on past activity or stated preferences

- Virtual reference services that are visible where users conduct searches and available at times that are convenient to them, and that pose minimal technical obstacles for use

- On-line citation services that assist patrons in building bibliographies

Above all, it is vital that our on-line resources and services be highly integrated and transparent to end users. Participants in Symposium 2010 expressed their vision for this as follows: "The scholar, student, [and] administrator become the central focus as the library becomes less visible and more integrated into the infrastructure of the enterprise" (Wand, 2005, p. 2).

Implementing systems and services such as those described above will not be easy. Success will be a process, not a destination. It is helpful to observe that "in most cases the effective application of information technologies for competitive operational advantage requires that the business processes be reengineered" (Cortez, Dutta, & Kazlauskas, 2004, p. 132). In short, this means that we will have to start thinking differently about the library enterprise if we

are to harness the value of emerging technologies and become an integral part of the digital lifestyle.

The Comparative Roles of Libraries and Publishers

Stinson (2006) aptly observed that "publishing is a sibling, if not a parent, of librarianship" (p. 14). In this author's view, the relationship was, until recently, quite parental, with libraries essentially deriving their collections from publishers much as children inherit traits and learn habits from their parents. However, emerging models for the publication and distribution of scholarly information may foster between libraries and publishers the sort of competition that often characterizes sibling relations.

Historically, a scholarly book or article's path from author to library patron was fairly easy to trace: author, publisher, distributor, acquiring library, reader. This flow will probably become much more diversified as the economics of digital information take shape. Possible alternative paths include:

- Author, publisher, database aggregator, subscribing library, reader

- Author, publisher (functioning as database vendor), subscribing library, reader

- Author, publisher, database aggregator, reader

- Author, sponsoring library (as publisher), search engine, reader

- Author, publisher (distributing directly to end user), reader

According to De Rosa and Dempsey (2004),

> It is clear that a new ecology and a new economy for scholarly materials are being formed. In the past, the flow of research and learning outputs traveled through formal, linear publishing mechanisms. We are seeing the emergence of a variety of repository frameworks, metadata aggregation services, and richer content interconnection and repurposing that are changing how we think about data and its uses. The library has the opportunity to take a leadership role in developing

> policies and programs that contribute to a coherent, institution-wide knowledge management system. (p. 11)

Academic libraries will conceivably emerge from this unstable environment with two new roles. First, our organizations will quite likely take charge of digital rights management on behalf of our institutions' information resources (Campbell, 2006, pp. 24, 26; *The Horizon Report*, 2006, p. 4). Second, many of our libraries may emerge as hosts of institutional repositories that bypass some of the functions carried out historically by scholarly publishers (Campbell, 2006, pp. 26, 28; Wand, 2005, p. 3). Christian college libraries may bear a particular responsibility to facilitate the digital preservation and distribution of retrospective Christian content.

Nevertheless, it is prudent to note that publishers and distributors are seizing (and will surely continue to seize) opportunities to disseminate content directly to end users—without the intermediation of libraries. Thus, both publishers and libraries will find it necessary to assess and defend their roles in the face of new competition, and it is conceivable that the distinctions between the two will be blurred.

The Roles of the Library as Place

Library buildings historically fulfilled three primary functions for their patrons: First, they stored collections of books and other information-bearing materials. Second, they provided space for patrons to read, study, and meet with each other. Third, they allowed researchers to consult with staff members concerning their information needs. As long as the library remained essentially a collection of material objects, it would have been incoherent to question its importance as a physical destination. However, given the progressive migration of library resources and services from physical space to cyberspace, it has become quite appropriate to talk about the future prospects of the library as place.

Over the course of the last two decades computer networks have revolutionized the way that libraries meet the needs of their patrons. Reading and research are becoming progressively less dependent on users' location. To a significant extent it is no longer necessary to visit library buildings in order to

retrieve information resources. Given such trends, one wonders whether there is much of a future for library buildings, particularly on college and university campuses.

Crowley (2001) regards this situation as a serious threat. In his view, academic libraries' successful deployment of on-line database resources has led, in many cases, to reduced foot traffic within the library facility. Given the strained financial condition of the higher education industry, a climate seems to be emerging in which some college and university leaders may find it reasonable to diminish or eliminate physical libraries (pp. 572-573). Campbell (2006), for his part, focuses on the incongruity of allocating prime space to the storage of low-use collections; he predicts that such space will be reassigned, though not necessarily to functions typically associated with academic libraries (p. 20).

Notwithstanding these concerns, there is cause for hope. Many campuses continue to construct, renovate, or expand library facilities. The number of new academic library construction projects reported annually in the December issue of *Library Journal* (*LJ*) has remained fairly constant since 2002. Perhaps the most intriguing aspect of the *LJ* articles is the apparent trend toward the integration of library services with other campus functions, both academic and non-academic. Innovation is reflected even in the names conferred on some of the new facilities, as shown below.

- Names emphasizing the library's roles vis-à-vis learning: Academic Resource Center; Learning Resource Center (2); Library and Learning Center (2); Student Learning Center

- Names emphasizing the connection between the library and information technology: Center for Library & Information Resources; Digital Library & Learning Resource Center; Information Commons; Library & Computer Commons; Library, Research, & Information Technology Center

- Names suggesting a desire to make the library a high-profile destination: Information & Alumni Center; Library & Student Center

- Name indicating a commitment to long-term preservation of physical collections: Library Depository/Retrieval Facility

Shill and Tonner (2004) report that "80 percent of the libraries completing a major space improvement project between 1995 and 2002 experienced greater facility usage in 2001-2002 than they did in a preproject baseline year . . . . The median change in postoccupancy usage was a 37.4 percent increase" (p. 148). They conclude that their research

> provides clear, empirical evidence that students can and will use a comfortable, well-equipped library, even with remote access to many electronic databases and the Internet available. This is an important conclusion because it suggests that a discerning investment in library facility improvements—whether a new library or improvements to existing space—will attract students to a specialized physical place designed to provide research and study space, teach information literacy skills, expose students to recorded knowledge in both print and electronic formats, and make "information experts" readily accessible. (p. 149)

Current trends suggest that the academic library's role as information warehouse will gradually decrease in importance. Last year the University of Texas at Austin moved most of the 90,000 volumes in its undergraduate library to other sites around campus (Blumenthal, 2005; *Flawn Academic Center*, 2006). The newest campus in the University of California system, located in Merced, aims to maintain a collection of only 250,000 volumes—by historical and comparative standards, a slim figure for a research library (Carlson, 2005). Diminishing reliance on physical collections will likely result in more widespread deployment of compact shelving, maintenance of zero-growth collections, removal of little used print collections to remote storage facilities, and increased use of interlibrary loan and document delivery services.

Under ideal circumstances, space formerly designated for existing or planned collections will be reallocated for patron use. According to Symposium 2010 participants, "The [future] library is a welcoming, comfortable, functional, meeting place. The size of the onsite book collection is relatively stable and the traditional predominant pressure to accommodate its growth is replaced by reconfiguring

space for the learner" (Wand, 2005, p. 3). According to one prominent library architect, this will involve a radical shift: "'With the libraries of the past,' explains [Geoffrey] Freeman, 'you projected the rate of acquisition of a collection for 20 years. It always expanded at the expense of the user function. It's just the opposite now. Now you project it out to zero growth. You design around the user and expand at the expense of the collection'" (Allis, 2005, ¶ 13).

Focusing library space design around users will require academic communities to adapt their thinking to a generation of students whose skills, habits, and preferences differ from those of years gone by. As Farrell (2005) notes,

> Librarians have seen a trend toward group study and projects within academic libraries. Teamwork is a hallmark for millennials and they thrive in a group environment. . . . This will require spaces within libraries that support group interactions and technology. Librarians in addition to "libraries as a virtual resource" must focus on the "library as a place." The mix of remote and onsite services will be a challenge as librarians have been focusing on electronic access to collections. (p. 132)

Freeman (2005) succinctly summarizes this new view of the academic library as place: "The library's primary role is to advance and enrich the student's educational experience; however, by cutting across all disciplines and functions, the library also serves a significant social role. It is a place where people come together on levels and in ways that they might not in the residence hall, classroom, or off-campus location" (p. 6).

Criteria for Measuring Library Performance

As this article has already documented, the academic library landscape has changed significantly—even within the last five years. Not surprisingly, the traditional measures of an academic library's success—perhaps most clearly embodied in the standards of accrediting and professional bodies—have begun to be replaced.

Twenty years ago, the marks of an outstanding academic library were fairly clear: impressive physical facilities, massive collections of books and subscriptions (on paper or microform, of course),

seating for a significant proportion of the student body, a budget based on the institution's educational and general expenditures, and services provided by specialists in the disciplines of concern to the parent institution. Today, such measures are of lesser consequence, and others have arisen to significant prominence (Kyrillidou, 2004). Simply put, the application of technology to scholarship and libraries has led to a situation in which there are numerous ways to approach the satisfaction of information needs. Accordingly, accreditation standards for libraries are less prescriptive than they used to be.

To be clear, the displacement of the older standards was not accompanied by a decrease in the accountability of academic libraries. In fact, following trends in government and virtually every other segment of higher education, academic libraries have come under increased scrutiny in recent years. Patrons and regulatory agencies now expect academic libraries to demonstrate their value via various modes of assessment. A library's value is increasingly measured in relation to its stated mission, especially as that mission correlates with users' satisfaction and learning (De Rosa & Dempsey, 2004, p. 7; Gratch-Lindauer, 2002).

Indeed, creating experiential value for the patron is overwhelming all other criteria of success. In today's economy, the campus library faces a significant amount of competition from other players within the information marketplace. Not surprisingly, actual and prospective patrons tend to measure the library's quality and efficiency by comparing its facilities, resources, and services to those of its competitors: Barnes & Noble superstores, the various Google services, Amazon, and Questia, to name a handful.

As a case in point, Coffman (1998) compares the operation of bookseller chain superstores and branch public libraries, outlining both similarities and differences. He argues that bookstores operate more efficiently (by a margin of about 30%) by hiring less expensive personnel, offering a lower standard of information service, and spending less effort to catalog and classify the material on their shelves. At the same time, they manage to provide surroundings and service hours that exceed the comfort and convenience of many libraries. Clearly, the aims of bookstores and libraries overlap, at least to some extent, and users are bound to apply the standards of the former when evaluating the latter.

Unfortunately, as Crowley (2001) notes, institutional decision-makers may take little account of the virtues of academic libraries when comparing them to their various competitors.

> For an academic librarian, the rise of what are increasingly seen as more or less acceptable electronic alternatives to her or his professional services should be a very strong stimulus to identifying where librarians really rank in their own educational contexts. Here, it must be stressed that librarians make a crucial mistake if they believe that boards of trustees, presidents, and research/teaching faculty only support alternatives to university programs that are better than, or at least as good as, the originals. In reality, substitute services do not have to offer better or comparable quality. Replacement services only have to be "good enough to get the job done," according to the operative definitions of those who make significant college and university decisions on resource allocation. (p. 566)

Nevertheless, there is much to be said for user-centered academic libraries. If use of our libraries is suffering due to public perception, we need to do a better job of marketing what we offer and why—to students, professors, administrators, and trustees. But we cannot expect users to adapt extensively to our traditions. Rather, we must update what we do to conform to current societal expectations. Even more invasively, we need to think about conceding some of our historic roles and adopting others in their place. According to Anderson (2006), the information-seeking behavior of actual and potential library users is changing significantly. "Like water, they will follow the path of least resistance" (p. 1). Libraries are increasingly measured by the standards of popular Web-based tools. If libraries neglect (or worse, try to override) patron preferences, "they'll ultimately go where they want and we'll just get hurt" (p. 1). Accordingly, libraries must change—or fade into obsolescence.

Librarianship among the Professions

The preceding pages have outlined various trends that will impact academic libraries and librarians in the foreseeable future. The picture sketched here is not always inspiring; the library profession is in jeopardy, threatened by competition from a variety of quarters. Appropriately, this final section will attempt to explore whether there remains a long-range future for academic librarians, and if so, what roles we may play in it.

Required by an overwhelming majority of library jobs for more than 30 years, the master of library science (M.L.S.) degree is the unquestioned historic credential for admission to the library profession (Lynch & Smith, 2001, p. 414). However, until recently, the content of a typical M.L.S. degree did little to prepare a librarian for the technical duties that are increasingly characteristic of library jobs. According to Higa et al. (2005), "Analyses of job trends indicate that advanced computer skills, proficiency in Web-based resources and services, and the ability to be creative and inventive in an online environment are prerequisites for many library positions. Hiring new librarians with these skills and improving already-employed librarians' computer-based abilities is of paramount importance in an electronic environment" (p. 43).

Cortez, Dutta, and Kazlauskas (2004) press the case even further:

> In various types of libraries, staff and organizational structures are changing. In terms of staffing trends there is less need and emphasis on in-house technical specialties—acquisitions, cataloging, and processing—because these services are either being outsourced or assigned to paraprofessionals, particularly in many academic and school libraries. . . . The resulting role for the information professional or librarian aligns more closely with the knowledge and skills in technology management, business operations, and interpersonal skills. (pp. 134-135)

These authors go on to specify four categories of knowledge, competencies, and skills for library and information science professionals: *technical* (e.g., tools, processes, subject expertise), *administrative* (e.g., leadership, project management), *social* (e.g., communication, teamwork, problem-solving), and *system* (e.g., development methodologies, business planning) (pp. 139-140).

The boundaries of librarianship are more arbitrarily and rigidly defined than those of other information professions. The M.L.S. establishes a baseline of knowledge and skill among those who hold it; however, it often seems to outline limits of potential innovation. Deiss (2004) astutely observes

that the relative maturity of many libraries entrenches them in traditions that tend to stifle needed innovations (pp. 23-24). Furthermore, our self-perception as experts can deter us from experimenting with new areas of discovery (p. 25). It is possible that, in the face of rapid technological change, our colleagues in the newer information professions are less convinced of their own expertness and more willing to engage in creatively playful behaviors that lead to innovation.

Crowley (2001) notes that "the revolution in electronic information brought about in large part by the academic library community has contributed to career uncertainty for its originators" (p. 581). This is to say that, through our successful deployment of on-line resources and services, we have unwittingly initiated processes that have gone much further than we intended. Whereas in years past we were visionaries whose innovations pushed patrons to adopt new information technologies, social forces are now forcing us to escape our own comfort zones.

As one compares the skill sets of librarians with those of more technically-oriented information professionals, it is painfully obvious that others can manage raw data more efficiently than we can. According to Campbell (2006),

> The skills needed to work with metadata, IRs, and other similar sources are much more highly technical than those possessed by most of today's academic librarians. In bringing such questions [about the future of academic libraries] forward, therefore, librarians must understand the stakes involved. . . . Given the events of the past decade, academic librarians perhaps know better than anyone else that the institutions they manage—and their own roles—may face extinction over the next decade. (p. 28)

Marcum (2003) summarizes the entries submitted in connection with an essay contest concerning the academic library in 2012. According to one contestant, the technological future anticipated for the academic library can only be realized through "reliance on outsourcing or a serious revitalization [of] the library profession involving the development of new roles and improved status for librarian-technologists" (¶ 7). Following this logic, the academic library profession can either be expected to shrink (as more functions are outsourced) or to undergo profound transformation (as current

members acquire new technical knowledge and skills, and as tech-savvy members are recruited to replace those who leave the profession). But this may be an oversimplification. Though our data management skills are not state-of-the-art, we may be able to handle information more intelligently than others—with knowledge of the disciplinary context and the capacity to facilitate the acquisition of knowledge.

In light of the above, academic librarians' value proposition will increasingly shift from the direct management of information toward the enablement of learning. According to Baker (2006), "Placing learning as the organizing principle for all that is done in the academic library is qualitatively different from simply understanding that it serves some educational role. It suggests that all the roles played by the academic library ought to be functions of the overarching aim to meet each one who comes in such a way that it facilitates an experience that engages them in authentic learning" (p. 8). Recently published regional accreditation standards seem to anticipate this. References to library collections have yielded to the language of access, reflecting the displacement of librarians as sole custodians of scholarly information. However, information literacy instruction has risen to greater prominence and there is a clearer sense of the need for an information-rich learning environment, reflecting areas where libraries may contribute to learning outcomes (Gratch-Lindauer, 2002, p. 16).

The changes anticipated here may well serve to decrease the hegemony of the M.L.S. as the standard credential for professional library service. Though library schools have already modified (and will surely continue to modify) their curriculum to meet evolving needs, the diversification of academic library roles may well preclude them from continuing to serve as nearly exclusive providers of education for librarianship. It is difficult to imagine that many schools of library and information science will be capable of providing adequate instruction across the broad range of disciplines that will likely inform librarianship in the future: library science, computer science, information science, communication studies, education, and management. Accordingly, academic libraries will presumably become more open toward the idea of hiring candidates with degrees other than the M.L.S., especially if they hold the Ph.D. (Berry, 2003; Crowley, 2001, pp. 580-581).

Given the likelihood that the role of the academic librarian will be transformed in some

significant ways in the coming years, and that this will presumably diversify the range of credentials represented within the profession, it is difficult to predict whether the traditional values of librarianship will remain intact. How many of Gorman's (2000) core values—stewardship, service, intellectual freedom, rationalism, literacy and learning, equity of access, privacy, and democracy—are likely to be upheld in an environment where information resources are increasingly managed by commercial entities? Will those who are admitted into the library profession from disciplinary traditions other than library science imbibe the historic commitments of librarians? It is difficult to hazard a prediction.

On a related yet distinct note, what are the prospects for future Christian influence within the library profession? The pursuit of a "deep librarianship," to borrow Richardson's (1992) phrase, has in the past been frustrated by the influence of radical libertarian thought and by the all-too-frequent attention of professional organizations to political causes that have little to do with the success of libraries (Durant, 2005). There is definitely an ongoing need for organizations such as the Association of Christian Librarians to provide spiritual orientation within the profession—as a ministry to Christians working in religious and secular contexts, and as a testimony to librarians who are opposed to the faith.

If, as described above, the future of academic librarianship will tend more towards pedagogy than information management, librarians serving Christian institutions will have particular opportunities to aid students and faculty in the integration of faith, life, and learning (Smith, 2000/2002a). Librarians serving in non-Christian settings will doubtless need much support as they seek to share their faith responsibly and advocate for the collection of Christian materials within their libraries (Davis, 1992; Davis & Tucker, 1993/2003). Those of us who wish to express our interest in the implementation of family-friendly policies within public and school libraries will probably find sympathetic voices among our Christian librarian colleagues. Some of us need to work on articulating a philosophy of librarianship consistent with biblical theism, a framework that will help us all to rationalize our identity as Christian librarians (Smith, 2002b; Waller, 1977). Many of us may find that networking with other Christian librarians motivates and empowers us to assist in the development of Christian libraries overseas

(Abernathy & Gill, 2003). Finally, all of us will surely benefit from mutual Christian encouragement as we continue to navigate an environment of rapid change.

Conclusion

In light of the trends discussed in this article, what conclusions can we reach concerning the future of academic libraries? First, the academic library is not an end in itself. For too long we have acted as if libraries hold the same status as motherhood and apple pie. We must now wake up to the fact that libraries are in jeopardy—that we have to prove our value—in a market that makes information resources and services available, without our intermediation, to our intended patrons.

Second, if academic libraries are to remain a vital component of their parent institutions, academic librarians must understand the stresses that higher education is facing. We have a strong history of providing support for teaching and learning activities, yet postsecondary institutions' academic support needs are changing. If we can discover what academic support needs are currently going unmet and adapt to meet them, we will likely ensure our collective viability (though modifying our profession from its traditional form). If we perceive ourselves as being in the information management business, we will probably lose out to other players in the market. However, if we identify our past involvement in information management as an expression of our support for teaching and learning, we will find that we are better poised to assume other roles in the academic support arena.

Third, the notion of a library as a collection of locally owned materials—especially books—is out of touch with reality. We should expect continued migration towards a digital information environment. Information is being packaged in a more diverse range of containers than ever before. It is being delivered to end users with decreasing regard for their location, often without direct human mediation. We can expect continued digitization of retrospective content as well as intensified competition from other information providers.

Fourth, individual academic library facilities will remain the heart of their respective institutions

only to the extent that they intertwine themselves with learning. Core learning activities may include classroom instruction, lab-based instruction, computer-based research, private study, interaction in virtual communities, and collaboration between faculty, staff, and students. Future library construction and renovation projects should emphasize flexible design, give user needs and preferences primary consideration, integrate a variety of current and emerging technologies, and lead to increased partnership with other stakeholders in the institution's teaching and learning mission.

Fifth, academic libraries will continue to outsource or concede their information management functions to non-library entities. To the extent that they develop programming to support local educational needs, they will become increasingly unique. Absent the emphasis on storage of local collections, it will become progressively more difficult to define the essence of the academic library. Accordingly, assessment of library performance will come to be defined even more in terms of its contribution to locally defined learning objectives.

Sixth, libraries that fail to innovate will die a slow death. Factors contributing to their demise may include end users' overwhelming orientation toward network-based information resources; the proliferation of on-line resources and services that bypass libraries; library employees' resistance to change; the myopia of campus leaders who perceive no need to invest in libraries in an environment of abundant Web-based information; and the preoccupation of professional organizations with political issues and other matters less than central to the success of the library.

Is there a future for academic librarians? My answer is a qualified "yes." Moving beyond mere survival to a renewed position of centrality will require us to change in fundamental ways. We must be open to change in our organizational mission, our individual job descriptions, the credentials required for work in libraries, patterns of library facility use, and expectations of a highly stable work environment. If we listen attentively to our institutional communities, we will discover that there are many areas of untapped opportunity for academic librarians and others who are passionate about serving the noble cause of higher learning.

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