

WHAT IS THE LIKELY SHAPE OF THE LIBRARY IN 2005? AND HOW DO WE BUILD COLLECTIONS FOR IT?

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Who Are Our Users?

Academic institutions of the past have considered their role in colleges and universities as a way to prove their lot in life – and not necessarily their salary, but this is a big issue with today's students. For the most part a majority of these early college and university graduates were white males who came from middle or upper classes, and entered and graduated from these institutions shortly after high school graduation.

Over the past few decades, these common denominators have been changing. We see far greater change in enrolments, demographics, re-entry and older adult commuter populations.

Many of our institutions have begun to cater to the growing minority and immigrant, or first generation college student, the low income (often poverty-stricken or violence-ridden students in the urban environment), and to the female, single parent, older adult or commuting student. We have seen our enrolments change to a more equal division between men and women, with many of the urban campuses changing to a predominantly female, multicultural student population, and an average change from the 18-20 year old to an average age above 30 or 40. This type of multicultural diverse community, within an urban environment, with the university having closer ties and city connections and partnerships, where students are better able to ensure internships in business and industry, with higher-paying careers after graduation, is beginning to be seen as the wave of the future. Another recent change in higher education is the burgeoning distance education, virtual universities, and industry and businesses developing highly competitive market-driven degree programs. This has many advantages for the older populations, whose need for retraining, re-education, and more frequent career changes in a lifetime, are changing the traditional higher education marketplace.

Students in the arts and humanities are declining sharply, as those in business and those in computer science have dramatically increased. And business, industry, and the computer science communities are often not satisfied with the slow pace of change in the university, where students often graduate without the technological expertise and management skills and competencies needed.

How Are We Serving Our Users Now?

In the past, library collections ranged from books, journals, microforms, media, and maps, to archival and special collections. With the advent of electronic access and digital library collection growth, a greater focus on interdisciplinary resources, and a changing nature of scholarly communications, along with spiraling inflationary costs in science journals in particular, and a burgeoning need for expensive computing infrastructure, collections and collecting has changed.

A revolution in technology over the past few years has taken place. An evolution is taking place right now in teaching and learning using new instructional technologies, with a focus on collaborative and self-directed learning, and a lesser focus on traditional methods of teaching.

To serve our users now, we must become more visible on our campuses and decrease the pressures on our limited funding. We must continue our partnerships such as those with vendors, professional societies, and others, to promote the various alternatives for less expensive resources available. Examples of this include SPARC (the Scholarly Publishing and Academic Resources Coalition), the High Wire Press, JSTOR, and Project Muse.

Library satisfaction often appears to be better now in comparison to any other campus instructional or support service, which may well mean that we are doing better at visibility and in meeting library user needs. Although reference statistics are decreasing, the actual use of libraries is increasing in different ways, particularly in electronic resource centers, scholars' information centers, and in computer laboratories. We are seeing student library use and priorities differing significantly from faculty. Our younger undergraduates are more digital library users, whose objectives differ from the older graduate students and faculty (the usually more traditional library user). Many younger students prefer not to use traditional print resources, even if they are more scholarly and more relevant. They like the 'quick and dirty' library search. If it's electronic access, they feel it's 'good enough'. They want speed and immediate print access.

Faculty (and even graduate students) tend to rely more on their colleagues when identifying information resources and seeking answers to their questions. Faculty seem to have more time limitations, and less patience with learning new tools, while students like playing with and learning the newest technologies. Faculty tend to be the remote users, often sending proxies to do their research, while a large percentage of students are library-based users. Many faculty still feel more comfortable with traditional library research and print resources. This is especially true of those nearing retirement. Many of them do not want to have to re-learn how to conduct a literature search electronically and to have to gain all the computing competencies required. Many of the younger students are more comfortable with this as they have grown up in a more technologically and visually oriented society.

Problems

Students think research is far easier than it really is. There remains a great deal still to be addressed in library user education, especially in a more advanced technological library environment. The faculty continually request that librarians provide more instruction not just to undergraduates but to everyone, and particularly in teaching critical thinking skills and how to evaluate the scholarly resources on the net.

What Are Our Users Looking for?

Today libraries are developing new ways to provide simple, easy access. They want to reduce the many different methods now provided for electronic access, i.e. gateways from one screen to the online catalog; networked CD-ROMS; the Internet and World Wide Web; and hotlinks from one information source to others, including full-text, images, and related sound recordings. Our tendency has been to provide such gateways for either the novice or sophisticated user, but does this work? Some initial studies have demonstrated that sophisticated users are few and far between — that both novice and advanced use the less sophisticated, easier to manipulate methods of online searching.

The challenges in building a digital library are more than just technical. To create a system that effectively supports users, it is essential to examine the users' needs, preferences, and work context.

Most user studies have been about how people use existing systems, rather than focusing on the users themselves, and their information-seeking behavior. Despite the large number of resources available, a large percentage of faculty and students use only a few bibliographic resources to complete a project.

End users are answer-oriented, rather than query-oriented, as they are searching for an answer to a question, not information on where and how to find the answer. They want quick information with minimal investment in learning. Users are not taking advantage of features developed in response to their expressed requirements. There are individual differences in search behavior and information retrieval. Research in the humanities, social sciences, and sciences is a significant variable effecting user search behavior. Information retrieval is influenced by academic discipline, technical aptitude, multicultural and language differences, as well as personality.

Users are not clear on the distinctions between a gateway, an electronic library, and a digital library. They do not want technical details from point of inquiry through items retrieved. Thus, we need improved standards in metadata control, document identifiers, and information search and retrieval protocols. From the user standpoint, a significant advance would be linking to full-text in as many instances as possible.

The library must continue to perform one of the most important functions it now

performs, to organize the universe of resources in such a way that those most likely to be of value to users are made most accessible to them, physically and intellectually. The librarian will continue to act as an information filter, helping the library user to select the most relevant resources from the universe of network resources. Contact with our clientele is key. Instead of focusing on the latest technology, libraries should focus on quality resources and in ensuring universal access. In short, our users want:

- to find answers;
- to be ensured the information retrieved is of high quality;
- to obtain quality customer service;
- to have easy-to-use interfaces with little, or no, downtime;
- to have easy and fast access on- and off-site;
- and, to be taught life-long learning skills.

How Are We Changing Our Definitions and Practices?

The future for serious scholarship is at stake, as publishing giants buy out, or force out, the smaller publishers whose focus has been on serious scholarly works. Skyrocketing prices in the sciences have forced a significant shift away from purchases of books, especially for the undergraduates, and within the humanities and social sciences. University presses have virtually ceased publishing in the fields for which there is the least demand and publish more popular, less scholarly materials. This has led to access over ownership and a greater reliance on document delivery, to replace what we cannot afford, but also to provide resources we would never have owned, and to enhance more local collections to provide us with more information than was once available on-site.

Research library collections are becoming more homogeneous. There are less discretionary funds to acquire unique and specialized materials. Some believe that we must promote one national library of last resort, or that we establish 'Centers of Excellence' in a few of the larger research libraries. These few larger libraries would then become the repositories and development centers for particular disciplines or subject fields.

The printed academic journal and scholarly monograph are quickly dying out, as libraries cut them from their budgets to compensate for spiraling costs of science and technology journals. There is a growing potential for the popular electronic, pay-per-view book, or print-on-demand journal article, lessening the potential ability of access to low-demand, less popular, more scholarly works. There is a growing concern about the obsolescence of hardware and software, or our inability to emulate older hardware and software, creating an inability to access and read much information from the past two decades. There is also a growing concern that our marketplace contenders will force many universities out of business. At the same time we worry about the loss of the

cultural memory of the recent past, we have seen some interesting projects initiated at many of our institutions (such as Carnegie Mellon, the University of California at Berkeley, the University of Illinois, Stanford University, and the University of Michigan to name but a few). Similar innovation has occurred through library consortia, as well as through the Digital Library Federation; the National Electronic Article Repository (NEAR) proposal; and with projects such as the interactive, real-time reference user assistance projects (such as ‘Talk Back’) and the many developing Internet 2 projects. We also have seen development in:

- new methods of document delivery;
- scanning of articles for electronic reserves;
- enhanced reliability and availability that comes with a 24 hour, 7 day per week Web presence;
- impact of portable laptop and electronic book library projects for teaching, research, and learning;
- development of wireless networked smart classrooms;
- and increasing numbers of purely electronic libraries such as at California State University at San Marcos and the University of Pennsylvania’s undergraduate library (which has no books, papers, or journals).

Libraries must be entrepreneurial, innovative, and technologically oriented with a strong public services’ commitment, and with an ability to make rapid change to meet new demands and expectations. The technological part is easier; people are more difficult when it comes to effecting change and innovation. Many dislike change, especially fast, radical change. We need staff more comfortable with new technologies and in dealing with rapid change. We need those who are adaptable and flexible and those willing to be re-trained and re-educated. In short, to end with an Arab proverb, remember that ‘All mankind is divided into three classes: those that are immovable, those that are movable, and those that move’.