Academic Libraries Redefined: Old Mission with a New Face
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Abstract
Digital technology has created new models of education and learning; revolutionized the publishing industry and provided new ways to access, select and produce information. Universities have seen a growth in e-learning and distance learning students. Academic libraries have seen a stronger demand for electronic resources. This has impacted on the role of library services. This paper reviews scholarly and professional literature on the role of academic libraries in supporting the new models of education by procuring electronic resources and providing access to them using proper technical infrastructure and expertise. The paper also describes the continuing need for a physical space for intellectual and interactive work in an electronic environment.

Keywords: Electronic resources, Academic libraries, E-learning, Library websites, Information Commons.

Introduction
Academic libraries are part of an educational process and have a mission. They exist to support students, staff and academic faculty in their research and education by procuring and making the best print and electronic resources available. Use of technology and the internet has changed publishing models and the information landscape. In recent years there have been several changes in education models, student profiles and demographics. E-learning has become popular among the student population. E-learning and distance education students have shown a great demand for remote and online access to learning materials (Ashcroft & Fong, 2005). Library users now have more information access options available, including access to full text volumes which can be searched, browsed and printed from their desktops (Covi & Cragin, 2004). All this has implications for the traditional academic library. If they are to remain relevant and useful, and fulfill their mission, academic libraries must redefine their roles and make serious efforts to keep abreast with developing technology.

A traditional library is no longer the only or even the primary provider of information to its community (Research Information Network & Consortium of Research Libraries in the British Isles, 2007). Search engines like Google and Yahoo provide users with free information in a variety of formats, including electronic documents. Many library users are thus under the impression that all their information needs can be handled and satisfied by search engines. They believe that all information is available free on the web and that this is the information to use thereby bypassing the library as a place to find what they are seeking (Research Information Network & Consortium of Research Libraries in the British Isles, 2007). Users are beginning to perceive the library as something used at the end, or at best in the middle, of their information search (Sharifabadi, 2006). Libraries have recognized this challenge. They are supporting the new models of education and reaching out to their patrons by facilitating an easy path for accessing the vast library resources. This paper first briefly describes the new models of education and the changing
needs of the new digital generation students. It then examines the new mission of academic libraries in supporting education and learning by procuring print and electronic resources; providing access to the resources through well designed library websites and technical support; and by providing access to a physical space in the library for intellectual and interactive work. The paper finally looks at future challenges for academic libraries in a digital environment.

1. Technology driven new models: drivers for new developments in library services

Many educational institutions are using the internet for delivery of online educational services. This new educational model is called e-learning. The CARL E-learning Working Group (2005) describes e-learning as a “push” type of online instructional service where instructors use technology to push online educational materials to a large number of students. E-learning infrastructure uses course management systems to deliver education. WEBCT and Blackboard are examples of course management systems. A course management system enables students and instructors to work and interact with each other. It allows faculty to prepare and deliver multimodal educational content along with links to library resources electronically to students (Ullman & Rabinowitz, 2004). For example, a lecturer can add a seamless link from the course management system to a specific library e-resource article or a link to other library resources/repositories that students can search without actually logging in to the library catalog (Sharifabadi, 2006). Course management systems also provide libraries with additional tools to present content in user customized formats, i.e. package material for specific student groups and embed training models to assist in information seeking (Dinkelman & Stacy-Bates, 2007). This is one step ahead for libraries to enhance the learning experience by taking their services directly to the students who tend to ignore the library and go directly to the web to find information. This new model of education has also given rise to a new generation of students.

The new generation of students, especially students enrolled in distance or e-learning have a great interest in online resources. Students often opt for full-text online resources because it saves time and is accessible 24/7. “Moreover the digital generation youth are known for multi-tasking, and so the ability to access materials from their own rooms at their own convenience also enables them to multi-task while doing their research” (Moyo, 2004, p. 223). This generation of users expects more from libraries; they want fast and easy information. These models have challenged libraries to change the way they deliver their services.

2. New role for Academic libraries

Bennett (2003) identifies two major shifts in education. Firstly, he argues that higher education is moving away from a teaching to a learning culture. Secondly, the revolution in information technology is changing delivery of education. Bennett (2003) argues that an academic library should take these two shifts into account while planning their services. Bennett (2003) also argues that academic libraries should not be seen solely as a traditional storage facility for books, or simply as a technology centre, but instead the library should focus on the process of learning that takes place within its space, bringing resources, learners, and experts into easy proximity to facilitate collaborative learning. More recently, Freeman (2005) has referred to libraries as learning laboratories that accommodate learning in a variety of formats.

E-learning has become a mainstream aspect of educational curriculums in many institutions today. E-learning promotes cooperative and collaborative learning and offers students the opportunity to work in collaboration thereby creating academic social networks. The new models of education have prompted academic libraries to become flexible, accessible, up-to-date and support this distributed nature of learning and work (Covi & Cragin, 2004). Academic libraries are shifting focus of their collection, making
efforts to make the print and electronic resources easily accessible and providing an integrated learning space for their academic community to support collaborative learning.

2a. Change in collection development
Scholarly communication has changed over the years. The evolution of scholarly communication has led to library evolution too. To keep up with the demand for remote access to electronic resources, academic libraries have shifted focus from ownership of information to the model of “anywhere” “anytime” access to information (Covi & Cragin, 2004; MacWhinnie, 2003). Academic libraries are spending a large portion of their budget on electronic resource subscriptions to meet the educational, recreational and informational needs of the academic community (Research Information Network & Consortium of Research Libraries in the British Isles, 2007). In addition to owning publications and purchasing print journals, many libraries are also purchasing electronic subscriptions or entering into consortia arrangements with other libraries to procure electronic resources. The value of these electronic resources is demonstrable according to the CARL E-learning Working Group Report (2005) which states that the resources are critical to research; it saves time and increases productivity.

2b. Discovery and access
For libraries, the problems of making sure these new electronic resources are available for use is more than just a marketing issue. Integrating electronic resources into a library collection is a team activity. The cataloguer has to make sure that appropriate tags and links are in the online catalogue record of each item (Moyo, 2002). Systems people provide technical assistance when required and ensure that library’s public and staff computers have the appropriate software needed for access, and librarians organize the materials for easy access (Moyo, 2002).

In recent years academic libraries have emerged as a portal to the information highway with carefully mapped directions to the desired information (Moyo, 2002). Dinkelman & Stacy-Bates (2007) note that librarians have become innovative and provide dynamic, flexible and user oriented ways for easy navigation through the website. Moyo (2002) observes that the overall experience of navigating electronic resources through the library’s homepage will depend as much on the information architecture as on how information is categorized, labeled, presented and how navigation and access are facilitated. An easy to navigate information architecture determines if users can find what they need, which in turn affects user satisfaction and influences return visits (Moyo, 2002). To deal with this, many libraries create support structures for their collections in the virtual reference space through their homepages, which provide mental mapping of the intellectual space and signpost the web (Moyo, 2002).

Some library homepages organize electronic resources by type (directories, encyclopedias etc.), while others organize them by function, depending on what the library professionals think might help their patrons in gaining easy access. Instead of accessing all the individual electronic resources subscribed by the library available through different vendors individually, Tenopir (2004) suggests federated searching as an effective way to increase the functionality and use of electronic resources in libraries. By using federated searching, patrons can easily retrieve results with one or two click searching and can link from e-text to e-text seamlessly whether it is full text, abstract, or a pointer to an offline resource (Tenopir, 2004).

2c. Technical expertise
Electronic resources and the new models of education have generated an even greater need for reference and instruction. Current education models support collaborative learning. Computer assisted collaborative learning brings together students with different levels of competence. Students sometimes lack technical and research skills and so do not find the best and appropriate information, tempting them to use whatever information they can find first, fast and full text
More importantly, even with a good easy to use integrated system students very often need the expertise of a librarian to apply search techniques and find the information they need. They need help in navigating through the many layers of electronic resources, and in evaluating and selecting appropriate sources for their research (MacWhinnie, 2003).

2d. Information Commons - Space for interactive and intellectual work
Though electronic resources are a preferred choice for many patrons, print materials are still in use because of the portability value and relative ease of access and use. Comfortable study spaces are still required to use this physical collection and electronic resources within the library. Conventional libraries support learning by improving library collections and equipment, providing quality reference services, and providing a physical space for reading facilities (Wang & Hwang, 2004). This function still continues for libraries even in the new digital learning environment, but with an added dimension.

Libraries have always provided study space, but the new set up provides group study facilities that have technology for access to both physical collection and electronic resources, technical help as well as access to specialized software that allows students to complete shared assignments (MacWhinnie, 2003). Information Commons is one model being adopted by many libraries for providing integrated technology and information resources and personalized assistance to patrons working in networked electronic environments (Moyo, 2004). The biggest advantage of such a space is that students can work and also get the research or technical help they require at one location (MacWhinnie, 2003). Scott Bennett’s editorial (2008) refers to the Information Commons as a “one stop” shopping for library services to support learning. Shill and Tonner’s study (2004) on library usage patterns found that an integrated library facility designed to provide research and study space, teach students information literacy skills, expose students to recorded knowledge in both print and electronic formats, and make “information experts” readily accessible in one place (p. 149).

3. Future challenges
Though academic libraries are making every effort to keep up with their user demands, they still face several challenges. In this paper we highlight three major challenges related to access and use of electronic resources. One of the main challenges is that library users are getting more and more self-sufficient in accessing online resources, which is alienating them from the library and staff. Some librarians at Penn State University have noted that in some cases users do not even know that the electronic resources they access are part of the suite of library services (Moyo, 2004). So libraries need to devise means of keeping users connected and engaged with the library so that they continue to learn and apply the full capabilities of resources and services offered, while at the same time recognize that these are quality research resources offered by their academic library (Moyo, 2004). Another challenge is that academic libraries are spending a big portion of their budget on electronic collection and so they need to ensure proper usage of the resources to justify the costs. Collecting usage data is one way to find out if users are using the resources available to them and to understand user’s awareness and experience with the services so as to avoid the “one size fits all” service to the entire academic community (Rowlands & Nicholas, 2008). However, Sukovic (2008) reports that use of e-texts are very discipline oriented. For example, Humanities scholars are still somewhat resistant to technology and so hesitate to use electronic resources (Sukovic, 2008). Libraries are thus challenged to target such groups to promote use of these resources. Finally, the biggest challenge for libraries is the need for trained and skilled professionals to deliver the services. The core competencies required to perform the new tasks of delivering services in an electronic environment are different from those required of librarians in the traditional print environment. In developing or
providing access to electronic collections and services, librarians are required to collaborate with a wider range of people than in the past, including academic faculty, computer specialists, graphic designers and archivists (Covi & Cragin, 2004).

Conclusion
Technology has brought profound changes to the academic world. New models of education and learning have emerged. The future of academic libraries is being molded by user demands. Advances in the electronic publishing world have increased information access options for users. Library users are more inclined to use online resources because of the ease of availability and use. To keep up with the demand for electronic resources, academic libraries have shifted focus from print collections to hybrid collections. Academic libraries are adapting their buildings and services to meet these changing education and collection models and user needs. They are providing the technical infrastructure and expertise in integrating access to the electronic resources with their already existing print collection. Most importantly, academic libraries are helping users access the vast amount of library resources, evaluate and select the best information for their specific needs (Sharifabadi, 2006). Last, but most importantly, libraries are recognizing the need to communicate effectively with students to encourage them not to rely solely on the web, but on valuable resources available through their library. The ultimate goal for libraries is in building systems that are flexible and adaptable; in educating faculty about the type of resources and services available, and in promoting the use of electronic resources through library websites.

Works Cited


