As the 21st Century unfolds, academic librarians find themselves in a time of substantial change. Library users have changed, the information tools available to them have changed and, perhaps most significantly, the way in which users interact with libraries has changed. Service programming at most academic libraries has been impacted by these changes. To effectively serve 21st Century library users, librarians must strongly challenge their current assumptions about patron needs, service programming, and about their own roles as information professionals.

Several indicators suggest that a disconnect is developing between libraries and their users. Users are seeking and finding alternate information resources. Remote and around-the-clock access to library services is increasingly the norm. Providing assistance to information seekers at the point of need is increasingly challenging because the point of need is becoming ever more broadly defined (Grodzins-Lipow 50). As fewer patrons avail themselves of traditional desk-based reference service, increasing numbers of users are taking advantage of remote-access library services that are often served with no option to seek librarian help. Librarians must be positioned to deliver services to this new generation of academic library users whose service expectations and use patterns differ markedly from those of their predecessors. Complicating the resolution of these issues is the fact that many students are arriving at libraries quite deficient in information literacy skills. Traditional library service models often lack both flexibility and focus to respond to these circumstances, but librarians can embrace a new view of their role and work toward positive solutions of these issues.

Changing the Service Focus

Central to the development of an appropriate response to current circumstances is a change in perspective, a fundamental change in the way librarians view their role as participants in the educational and research process. The traditional content, or object-centered, view of library service posits that librarians are to acquire books and other information resources, and engage in a variety of activities designed to make them available to users. The measurement of success in this model is, essentially, how well content is acquired, managed and made available. This view is reflected in many traditional measures of libraries—number of journal subscriptions, number of volumes owned, the gate count of patrons. Indicators such as these are viable measures of the library, but they often do not reflect a true measure of library service. In the face of changes such as noted above, this traditional view of library service becomes increasingly difficult to support.

Libraries should strive to view their service mission from the perspective of the patron. A patron-centered view of library service addresses modern patron needs and alternative ways of using the library, and it respects the time-related user needs that have evolved along with remote access and the increasing number of busy non-traditional students who cannot adhere to a traditional schedule (Budd 2001).

Importantly, a patron-centered view of the library mission suggests that academic library
service programming must endeavor to directly impact the specific learning and research outcomes of the student or researcher. Such a focus will lead the librarian into closer alliances with teaching faculty and researchers as courses are developed and research teams are formed. Rather than building collections against broad goals, collections can be developed to optimize impact on a focused set of outcomes that are germane to the interests of particular library clientele groups. Users will benefit as librarians implement programming that reflects a philosophical change from a content view (number of books, type of subject matter addressed) to a competency view (what students will be able to do having utilized library resources) (Smith 2000). If librarians choose to adopt this view of service programming, they will be in an excellent position to remain relevant in a changing information environment and embrace a leadership role in making these changes successful.

An effective implementation of this approach to library service programming will address changes in user patterns, provide human service at the point of need (virtually or in-person), and accommodate instruction in the information literacy skills needed to use these resources. In a rapidly developing environment with limited resources, it is also essential that libraries assess programs, ongoing and under development, and continue that assessment to ensure that changes remain effective.

Recognizing Modern User Patterns

In this new environment of changing services and logistics, users have developed different information-seeking habits. This clientele can often best be served by programming a mix of traditional and modern services. Librarians are, however, truly challenged to assist users in the effective use of electronic resources when the majority of users are beyond reach of the librarians (Newins 11). These remote users may be found both inside and outside of the library. Patrons working in the library, accustomed to doing many tasks online, are increasingly hesitant to approach a librarian for assistance. Students often attempt to confer inconspicuously with neighbors or attempt trial-and-error rather than draw attention to themselves by asking for help (Weiler 161). A user may be working in a part of the library remote from the reference staff, or may not want to risk losing access to a workstation while going to a reference desk.

When patrons do seek help, however, they typically require more assistance than in the past (Kyrillidou 427). In a survey conducted by a major library systems vendor, students indicated that they would prefer studying at home but “at home there is no one to help” (Ward 22). Research such as this indicates the need for a service model that incorporates a well-tailored mix of electronic, online services and professional human assistance. Human assistance may be presented in several forms: the traditional staffed desk service point; consultation by appointment in the office of either the patron or the librarian; or a virtual presence via a chat or online/telephone connection. Whatever the implementation, users can make effective use of such a service model when basic information literacy skills are present. It may properly fall to the academic librarian to carry the primary responsibility for this training.

Information Literacy

Information literacy has been defined in several ways, but many agree on the basic definition that library information literacy is the ability to access, evaluate and apply creative thinking in the use of information from a variety of sources (CMLEA 26). Students arriving at college are often ill-prepared to grapple with the information resources presented by the modern academic library. Compounding the problem is the fact that many students have come to believe
that accessing and using information is simple, a belief supported by commercial marketing practices and popular usage of the Internet. In part because the Internet is so often billed as easy to use, even patrons working in the library hesitate to ask librarians for help.

Popular usage may be easy, but effective research usage is not. Librarians often presume that students have grown up with computers but, in many cases, students arrive at college with no significant training in information literacy as defined herein. Many secondary schools claim to integrate information technology into the curriculum but, in fact, this training is often neither monitored nor evaluated. Only in rare instances have educational standards been established for such skills. Students, as Weiler so aptly puts it, often simply do not “know all that stuff” (Weiler 167).

In the face of this need, however, there is often precious little time in any academic curriculum to add anything, even something as significant as information literacy training. Creative means are, however, available to librarians. Information literacy training can and should be adapted to local needs, and academic libraries and librarians are most often the best choice for developing and delivering such training. Evidence of this is found in the Association of College and Research Libraries (ACRL) Information Literacy Standards for Higher Education, where student learning is viewed as a joint responsibility of the university and the library. When the library changes the focus of its mission from a content view (making available material to support particular subjects) to a competency view (ensuring that students will develop course-indicated competencies) the library can actively contribute to achievement of learning outcomes.

In this type of instruction, practical reigns over theoretical. Point-of-use and time-of-need (Grozdins-Lipow 50) is most often the best environment in which to develop information literacy skills, and the library is the primary environment in which those needs occur (Willingham 70). Further, it is the librarians, with their extensive experience in broad fields of inquiry, who can best advise users about the “charlatans of information” that lurk on the Internet and within other information resources (McKenzie 127). While there has always been suspect literature available to the unwary researcher, the self-publishing aspect of the Internet has made it ever more essential for library users to be educated about McKenzie’s principle: powerful questioning (information literacy) leads to information power—the ability to fashion solutions, decisions and plans that are original, cogent and effective. However information literacy issues are addressed, librarians should recognize that, as the future unfolds, library users will continue to need a balanced mix of services.

Recognizing New Roles for Librarians

Most libraries will find that constructing a new service model must be done without the benefit of additional staff. While staffing is always a challenge, it can be turned into an opportunity to begin the development of new staffing patterns, a new mix of services, and to develop new roles for existing librarians (Youngman). Whether or not librarians choose to embrace the fact, new roles have already been created for them. Many libraries are now pursuing initiatives that are deliberately structured to emphasize direct contact between library subject specialists and academic departments. This results in the enhancement of much-needed consultative services, but at the expense of librarian hours available for either traditional desk-based or “virtual” service. While it is true that desk reference questions are declining, ARL statistics in 2000 were still indicating a median number of approximately 130,000 desk questions per year. Even proponents of increased library electronics note that traditional services are an
integral part of any future reference service model (McKenzie, 127). Response to the need for traditional interaction between patron and librarian should not, however, be limited to the reference desk. Remote users may need as much, or more, librarian assistance as in-person users. Technology now allows the implementation of virtual reference services, either chat or voice-based, that can be quite effective in extending library resources to distant users.

Increasingly, librarians are finding themselves employed as content developers—i.e., contributors to or developers of a variety of information resources served to patrons across the Web, often through a digital library setup. Web tutorials, specialized “non-acquired” databases, and specialized subject assistance Web pages are representative examples. Librarians should be paying attention not only to improving library-use instructional resources, they should also be improving the user (electronic) interface so that less instruction is necessary (Newins, 11).

**Elements of a Service Model**

At some point, it becomes necessary to make the transition from operational theory to actual practice. It is hoped that the suggestions outlined here are sufficiently representative to be used in the development of a service model for academic libraries. Changing user habits and the increased use of remote-access information resources have, in some libraries, coincided with the development of a digital library project. This situation can provide the opportunity to experiment with new roles for the librarians while tailoring the mix of services to accommodate user needs and staffing realities. Subject specialist librarians can be assigned responsibilities for interacting with teaching and research faculty. Digital library projects can create roles for librarians as content developers—those who identify and/or create unique content for incorporation into the digital library (Haddock).

While it is always difficult to find room in the curriculum for library literacy instruction, librarians can be both creative and aggressive in developing alternate means of promoting information literacy. If credit and/or tuition matters present complications, librarians may seek partnerships with those primary clientele groups that will yield instructional opportunities. College administrators should recognize the need for this type of instruction in specific areas of their respective curricula and accept librarians as partners in course development or as members of research teams. If local circumstance indicate the need for virtual, or “chat”, reference service, an opportunity is presented to re-examine the role of the traditional reference desk, and re-balance the allocation of librarian hours. Chat reference can also serve as an excellent forum in which to develop inter-library partnerships.

These suggestions represent only the beginning framework of a service model. Each library must construct a model of tailored service based on local circumstances. Whatever model is developed, it is essential to incorporate a robust and ongoing program of assessment. A strong assessment program is especially necessary in times when staff, (and other scarce resources) are being re-allocated into a new model. It is essential to ensure that these resources are being utilized most effectively. An increasing number of options are now available for libraries wishing to assess their service quality. Instruments such as LibQual+, independent implementations of Servqual, and guidelines as established by the North Central Accreditation AQIP program may be appropriate choices.

**Conclusion**

Library users have changed, information resources have changed, and the role of the
academic librarian is changing. Librarians face a choice- either embrace the changes and continue to provide excellent information service, or ignore the changes and risk becoming irrelevant. Users will benefit when librarians implement programming that reflects a philosophical change from a content view (books, subject matter) to a competency view (what students will be able to do) (SMITH 2000) and a change from an object-centered to a user-centered approach. (Budd 2001). In the future, the most effective academic libraries will likely provide a tailored mix of both traditional and new library services, while developing new roles for librarians that focus on information literacy and personal service to both local and remote users. An effective assessment program can provide feedback to ensure that the mix of tailored resources remains effective. With these elements in place, academic libraries and librarians will continue to be relevant and effective into the 21st Century.