The Library as a Full-Service Information Center

by Sue Samson and Erling Oelz

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The Information Center (IC) evolved to take control of technology, to integrate the library’s growing collection of networked resources with its service mission, to build a team of personnel committed to the success of the IC, and to integrate assessment into the cycle of change at the Mansfield Library.

Change has become a cliche, a worn-out concept that has lost its power to inform. At the same time change continues to be a constant—and, indeed, what would be the alternative?"1 Perhaps nowhere has change been more profound than in the arena of information technology. Being a librarian means adapting and learning something new every day; being a librarian means navigating the Web while still being able to use microforms; being a librarian means change is a dynamic premise of professional effectiveness.

One aspect of this change is that computers and networked resources have become an integral part of academic library collections during the past decade. Their impact is clearly defined by the advent of areas in academic libraries described variably as Information Commons, Information Centers, or Instruction Commons. The definition of such terms varies considerably between libraries but essentially describes a specific location in which electronic workstations are maintained by qualified staff for the delivery of electronic resources for research and production.2

Library user demand for the integration of electronic resources with production software and technical support evolved into the formation of an Information Center (IC) at The University of Montana-Missoula Mansfield Library. This paper describes the implementation process used by the Mansfield Library to take control of technology, to integrate its strong networked resources with its service mission, to build a team of personnel committed to the success of the IC, and to assess the results.

History and Implementation

The University of Montana-Missoula (UM) is a coeducational, doctoral university with an enrollment of 13,000 students and 700 faculty. The student body is composed of 11,000 undergraduates and 1600 graduates. In 1995, the Mansfield Library was providing service from three distinct locations: its main building, a separate location for media materials and instructional equipment, and a separate campus location for the College of Technology library recently incorporated into the UM system. Each of these locations required personnel to provide reference assistance, circulation and access services, and processing of materials; and hours of access varied form location to location. In addition, the smaller satellite media collection received strong recommendation from the universi-
ty’s recent accreditation team to alleviate the overcrowding for both personnel and materials and to make the collections accessible comparable to accessibility of the main collection.

This recommendation, along with planning investigations already underway, began what would evolve into the design and implementation of the IC. Steps were put in place to integrate the media collection into the main building along with the personnel, service desks, and processing. Once this integration occurred, discussions developed to address the multilevel service desks in place within the main library. These included separate service desks for: media circulation; monograph circulation; reference for government documents, maps, archives, and special collections; general reference; interlibrary loan; and copy services. In addition, these different service desks continued to maintain variable service hours. Users were frequently sent to another service desk or discovered that the service desk where they expected assistance was closed. The idea of one-stop assistance had appeal from both the perspective of user service and the perspective of organizational exigency.

At the same time and similar to other academic institutions, networked resources at the Mansfield Library were having a profound effect on the way users accessed information. Use of networked resources has expanded exponentially over the past decade, growing in numbers and changing library user services rapidly (Fig. 1). A cluster of six computers that provided access to eight databases on CD-ROM morphed into a cluster of twenty networked computers that provided Internet access and linked to over fifty databases. Currently, the network supports 145 workstations; provides access to the Web, e-mail, production software, and more than 150 databases; and links to a complete array of copy services, including laser and color printing, scanning, fax, slide production, presentation, and graphic design. Reference and instruction support are also adjacent and integral to the service.

**THE PLAN**

The nature of reference queries, the need for technical support, the maintenance of numerous service points with variable hours of service, and the need to provide service without additional staff coalesced into a plan for the creation of a center where all questions could receive answers during all open hours. At the beginning of the process, the following goals were identified in an effort to integrate new needs with a new model of service:

- maintain consistent hours of access at fewer service points;
- maximize the talents of all personnel;
- provide one-stop service for library users; and
- expedite referrals to qualified personnel.

Two ad hoc committee task forces were established to explore the steps necessary to establish a single point of service and relocate several units within the library. Task Force 1 was charged to build on the concept of one-stop shopping and to develop a proposal that would establish a single reference point and consider the realignment of all user service functions at the same time. Task Force 2 was charged to develop a proposal that called for the relocation of the Archives and Special Collections to address the protection of those elements of the collection that are truly unique and irreplaceable and to create a showcase Montana Room to serve as an exhibit, reception, and research area.

These groups represented those who would be involved in the process and their reports were given to the Director of Public Services. These proposals resulted in the decision to implement the IC with the following guidelines:

- the location of the IC was targeted for front and center as library users entered the building;
- the design of the IC would incorporate all relevant service points—media and monograph circulation, integrated reference, and interlibrary loan—with the exception of the Copy Services and Archives;
- all services would be available during all open hours with the exception of Archives; and
- training appropriate to quality levels of service would be provided to all IC personnel.

The final implementation plan involved a sequence of interwoven tasks. The design and construction of the IC desk included the unique needs of all integrated service points; for example, circulation and interlibrary loan operations preferred stand-up service points, while reference transactions and technical support required seated service and dual-monitor computers. Relocation of media collections, ready reference materials including government documents and maps, and interlibrary loan operations were integrated into the new IC. The traditional hard copy Reference Collection was condensed with less frequently used titles relocated into the main collection in order to focus on the rapidly expanding electronic reference collection. This shift accommodated the relocation of a large cluster of computer workstations that had previously been spread throughout the library into an area adjacent to the new IC. Technical support and information services including reference and instruction were placed in sight of and adjacent to the computer cluster.

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**Figure 1**

The Number of Subscription Networked Resources Available from the Mansfield Library Website, 1997–2003

![Graph showing the number of subscription networked resources available from the Mansfield Library Website, 1997–2003](image)
“The design and construction of the IC desk included the unique needs of all integrated service points [circulation reference media ILL technical support]...”

A single, continuous service desk provides inter-connected walk-up assistance for library users. Reference assistance is positioned in the center of this extended service area to provide front-line assistance and referrals. Although circulation, reference, technical support, and interlibrary loan have distinct work areas with signage, a library user can approach the desk at any point and receive a basic level of assistance that may lead to a personal referral or to another area of the service desk if necessary. In general, this is handled by the user being directed to the area within the service desk where their particular need can be most expeditiously addressed.

Finally, the implementation plan included a series of continuing education opportunities offered to all IC staff during a two-week period prior to fall semester and the opening of the IC.

**THE TECHNOLOGY TEAM AND TRAINING**

Critical to the success of the Information Center as it adapted to the needs of Mansfield Library users were the need for a stable, reliable network and the need for an integrated reference and technical support team to address the broad spectrum of user questions. The model of reference service devoted exclusively to locating information sources had gradually given way to a new model that addressed locating information online in tandem with transferring the information via e-mail, downloading, or presentation software. Reference questions are a blend of locating information, using online class software, accessing syllabi online, participating in online discussions groups, receiving and sending e-mail and attachments, using information to design and develop PowerPoint presentations or Microsoft documents, building tables in Excel, and printing options in pdf or html formats.

Even five years ago, the nature of reference questions relied less on a knowledge of hardware and software applications. However, once the IC workstations became full-service, library users flooded the premises; and their expectations for assistance were the groundwork for a new model of service. Several levels of support were put in place to address the increase in technical support queries.

First, the job descriptions for students who had previously been hired to shelve reference books and provide backup assistance at the reference desk during slow hours were rewritten. These positions were refocused to be front-line technical support for computer-related questions. Students applying for these jobs are now required to have a high level of experience with word processing software, hotmail, Web, and computer hardware. Their primary training is under the direction of Technical and Network Services and addresses the nuances of the local area network, remote access requirements, and a myriad of frequently asked technical support questions. Allocated hours for this student support were also increased as a result of funding made available through a student computer fee that targets the computing needs of all students.

Second, reference technicians provide a main source of consistent reference desk support throughout busy daytime hours. During high-volume times, librarians team up with technicians to provide a greater depth of coverage. All reference technicians were required to participate in the technical support training in order to have a competency level equal to that of the technical support students. They are often scheduled into vacant technical support slots or fill in for students unable to make their shifts.

Third, all librarians participated in continuing education opportunities that addressed their needs for a better understanding of the technical questions that were forthcoming. In almost all instances, librarians are scheduled on the IC reference desk with technical support either from a student or from a reference technician. However, all IC personnel were encouraged to strengthen their expertise so that they could provide a full complement of support.

Scheduling of the reference area of the IC includes a team approach that incorporates technical support student assistants, reference technicians, and librarians; all three are scheduled during prime time building usage, and varying combinations of two team members and sometimes one during low-use hours. In addition, Technology and Network Services provides backup support with two positions targeted at providing public computing assistance for difficult or complex questions. Technology and Network Services also monitors an online help desk function that includes critical status for emergency assistance with public stations. Further user assistance comes from the circulation and interlibrary loan operations that exist on each side of the reference area. With all IC staff trained to provide a basic level of information assistance, fill-in occurs automatically and naturally for both walk-up and telephone queries when queues form at any point at the IC.

Training needs were addressed initially when the IC opened. The two-week training series addressed an array of needs: complete tour of the library that was supported by a Web guide to all collections; a tour of each area of the integrated IC that identified unique capabilities of each section and the focus of the services provided; technical support basics in support of the public computers; and time for a Q&A session.

Since the initial training, on-going continuing education opportunities have been designed on a model of Reality CE. Trainers collect actual questions that provide a cross-section of training needs. These questions are variously grouped by general subject areas or types of questions in order to have the CE sessions focus on particular training needs. The CE sessions are held in a classroom with networked computers, and IC personnel are grouped into teams and given a question to answer in fifteen to twenty minutes. Each group then reports to the whole group with their approaches to the questions. Discussion is encouraged and members of the group provide additional input on methods and/or ways of answering the questions. These questions and potential methods for answering them are recorded and made available on the intranet. This Web site provides a source of frequently asked questions and can be further used for training with new IC personnel.
OUTCOMES AND DISCUSSION

Use of the Library

During the past five years, use of the library and its collections has shifted. While circulation and in-house reference queries have flattened, door counts, online access, and virtual reference have increased significantly. (Table 1). These data reflect trends in academic libraries nationwide and the unprecedented advances in information technologies that have revolutionized almost every facet of higher education.3 The rapid growth of electronic collections, the expectations of library users to access these resources in full text via the Web, and the increasing technical savvy of library users have combined to present challenges to academic libraries of how best to meet the changing information needs of their clientele.

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A result of these changes has been the advent of spaces within the academic library designated to deliver electronic resources for research and production that also provide a complete complement of instruction, reference assistance, and technical support. This concept builds on the trends identified in recent library renovations in which the model of a library is no longer one of warehouse but one of a workshop open for exploration and discovery.5 The evolution of the information commons concept has been one approach to providing new and refined levels of service to academic library users.6 The concept can be readily adapted to the campus culture and needs of individual institutions. Examples include an Information Commons at Colorado State University, an Instruction Commons at Iowa State University, and shifting levels of technical support at Central Michigan University.6

Workstation Availability

Another aspect of the Information Center concept is the management of the technology—computer workstations that provide access to information resources, a wide range of presentation software, networked copy services, online classes, electronic reserves, and faculty Web pages among other resources.7

As Graham reports, when the library becomes the most popular computer lab on campus, the definition of quality service and support to library users must be redefined and enhanced.

At the Mansfield library and during the time the IC was being designed and implemented, the university’s Information Technology Office transferred the management of one of their computer labs that was located in the library to the library’s administration. This particular computer lab had often functioned at less than 50 percent operation even while students waited in line for use of a workstation upstairs in the IC.6 In part this was due to the location but also to the fact that printing options were limited and access was restrictive. The user-friendly access to the cluster of visible workstations in the IC, the ease of printing to networked laser printers adjacent to the IC, and the location of immediate technical and research support nearby have fostered high use. This is underscored by data that show a rise in the door count and the continuing rise in access to the library’s Web page (Table 1).

Ease of access to the workstations remains the cornerstone of the popularity of the IC. The ebb and flow of computer use correlates to the beginning and end of class periods during the day, to the demands of the semester system, and to the fluctuation of the academic year. To make access as smooth as possible, technical support students circulate regularly to make sure all stations are operating properly. If malfunctions cannot be remedied, they are immediately reported to the Technology and Network Services help desk on a critical status that receives one-hour service. Occasionally, an empty station is located in the cluster and waiting library users are waved into place. If the queue is longer or more frequent than usual, patrons are encouraged that the wait will not be too long; and in fact most queues are short lived.

Personnel and Training

At its best, this model of service is a finely tuned choreography that allows IC personnel to flow easily from one service area to another to address whatever questions arise and from whatever source-in-person, telephone, or virtual. Central to this model is a team of personnel committed to quality service and, in particular, to the success of the IC; and underscoring this team concept is the need for successful training and a competent referral system.

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As described earlier, the creation and staffing of a technical support desk filled the missing link in the IC team. The technical support students are well trained and

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<td>Reference queries</td>
<td>44,819</td>
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<td>158,721</td>
<td>189,185</td>
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<td>Building visits</td>
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<td>562,896</td>
<td>679,951</td>
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<td>Web visits</td>
<td>147,410</td>
<td>262,222</td>
<td>389,688</td>
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capable and provide an important link to integrating information resources with software applications. In addition, they frequently provide assistance to other students, could be considered peer assistants, and offer an excellent level of user-friendly support that strengthens the library mission. As a point of service, a technical support student is available for more hours than other members of the team including reference technicians and librarians. Most importantly, by the juxtaposition of the service points, all IC personnel can learn from one another and interact with library users in support of all aspects of a question. Thus, a library user who needs to access a syllabus from electronic reserves, complete research on a particular topic, print peer-reviewed journal articles in pdf format from a database, compile a PowerPoint presentation incorporating graphics, print a color based handout, and check out a video and book will receive one-stop assistance even though a team of four IC personnel provide input.

Assessment

Shill and Tonner completed a comprehensive study on the use of new, expanded, renovated, or reconfigured libraries from 1995 to 2002. One of their recommendations for further research focused on whether the creation of an IC or the provision of productivity software on library computers has an affect on building use. One of the most telling user statistics relative to the implementation of the IC is the door count prior to and after its implementation in 2001 (Table 1). Although circulation numbers have softened, patron door counts continue to rise. Access to the library’s Web site has also continued to rise dramatically from 147,410 visits to the site for 616,923 Web pages in academic year 1999–2000 to 389,688 visits to the site for 1,153,754 Web pages in academic year 2002–2003. A visit is defined as one connection for all activity done by a particular computer in the space of thirty minutes. From numbers alone, it appears that the IC with its cluster of networked computers, production software, and adjacent technical, instruction, and reference assistance is addressing the needs of many library users.

In addition and in tandem with the design and development of the IC, the Mansfield Library participated in LibQual+™ during fall semester 2003. The timing of this assessment corresponded to the second year of IC implementation and provided an excellent opportunity to review the impact of this service model in “a survey that measures user perceptions and expectations of library service quality in four dimensions: Access to information, Affect of Service, Library as Place, and Personal Control.” The data from the LibQual+™ survey will be used to further enhance services provided at the IC. A library-wide retreat focused on the survey results and The 2003 OCLC Environmental Scan and included a presentation by a librarian from a participating LibQual+™ library to provide a framework for how the Mansfield Library can use the survey results to launch productive change. This retreat included brainstorming sessions by small groups that focused on specific aspects of the LibQual+™ survey results. An ad hoc committee was then formed to develop goals and measurable objectives based on the comments of these groups. These goals and objectives will set the groundwork for the next evolution of refining the IC model of service.

THE FUTURE

At the Mansfield Library, evolution is a key ingredient of the service mission that reflects the need for change identified in The 2003 OCLC Environmental Scan. The model described here to adapt user services to the changing needs of students, faculty, and staff at The University of Montana is one that can be adapted and modified in libraries across the country. Similar to many academic libraries, the IC evolved in an effort to take control of technology, to integrate the library’s growing collection of networked resources with its service mission, to build a team of personnel committed to the success of the IC, and to integrate assessment into the cycle of change at the Mansfield Library. The integration of assessment will provide the data necessary to address change as it relates to the needs and expectations of library users. As those needs and expectations change, so will the services.

“...the IC evolved in an effort to take control of technology, to integrate the library’s growing collection of networked resources with its service mission, to build a team...and to integrate assessment into the cycle of change...”

NOTES AND REFERENCES