

# **Brick and Click Libraries: The Shape of Tomorrow**

**Proceedings of a Regional  
Academic Library Symposium**

**Friday, October 10, 2003**

**Edited by**

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Brick and Click is a one-day conference that focuses on providing library resources and services for students who are either on-campus learners or off-campus learners. It is sponsored by Northwest Missouri State University in order to offer academic librarians a forum for sharing practical information. The proceedings include papers and abstracts of the conference presentations. Papers included in the proceedings are:

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## Introduction

A word from the editors, Connie Ury and Frank Baudino

What kind of future do we, as academic librarians, envision for ourselves? We pondered this question as we read the subtitle of this year's Brick and Click Libraries Symposium—"The Shape of Tomorrow." We decided to begin, not with what others are predicting, but with what librarians are saying about the future of our professional roles and environment.

The 2001 Association of College and Research Libraries (ACRL) "Focus on the Future Task Force" was charged "[t]o develop and implement a plan for keeping ACRL's collective eyes on the big picture and emerging trends" (American Library Association). W. Lee Hisle, a member of the task force, published a list of issues that were "most often expressed" by more than 300 librarians who aided the group in identifying important issues. These issues include:

- ◆ "[R]ecruitment, education, and retention of librarians";
- ◆ Role of the library in academic institutions;
- ◆ Technology's impact on academic library services;
- ◆ "Creation, control, and preservation of digital resources";
- ◆ "Chaos in scholarly communication";
- ◆ Services for distance education initiatives and online students;
- ◆ Public understanding of copyright and plagiarism;
- ◆ Crisis in funding for higher education (Hisle).

Other authors agree with and expand the issues listed above. The Syracuse University School of Information Studies maintains a career site for librarians. The site includes job descriptions for a variety of librarian specialties, including academic librarians. Highlighted areas of "impetus for change" include:

- ◆ Ways in which the technology is changing information "storage and delivery";
- ◆ Demands generated by off-site students participating in distance and distributed education;
- ◆ Expanding paraprofessional roles in areas once "solely the function of professional librarians";
- ◆ Formatting bibliographic instruction in such a way that it appeals to the learning styles and preferences of the current college student population (Librarians in the 21st Century).

Additionally, changes that are reinventing the environment in which academic libraries operate are enumerated:

- ◆ Campus networks and the prevalence of Internet based service delivery;
- ◆ Shifting information delivery mechanisms, moving from storage of sources to delivery of information from "shared or licensed" virtual information;
- ◆ Expectations that librarians have the expertise to create information technology, as well as put it into practice;

- ◆ Needs for librarians to create online guides and collections;
- ◆ Collection development on a regional level, providing access to specialized archives available in digitized formats;
- ◆ Increased focus on the role of academic librarians in teaching information literacy in partnership with departmental faculty (Librarians in the 21st Century).

The profession is following the predictions of foresighted librarians. In 1995, Bill Whitson, then President of the California Academic and Research Libraries, noted “Librarians [will] no longer [be] the principal custodians of knowledge resources . . . . Our principal role may be as intermediaries between people and information providers.” He concluded that “‘academic librarianship’ as we have known it connotes both a body of knowledge and a professional and institutional culture, and the changes which are occurring will alter our work lives so dramatically that very little of what we have known as academic librarianship is likely to survive.” In retrospect, Whitson’s predications describe the state of academic librarianship today. The issues, impetuses for change, and environment described in the preceding paragraphs portray an environment far different from the academic library in which many currently practicing librarians were trained to operate.

The nature of this new environment has altered the landscape of academic libraries and the daily practices of academic librarians. Gone are the days in which one answered most reference questions using a print collection of reference books, a library catalog, and periodical indexes. Librarians, who knew their collections well, could often locate a difficult answer in a matter of minutes, using print indexes and finding aids. Today, there is a plethora of online sources available, free and by subscription, which provide answers quickly if, once again, the librarian is familiar with how to find those answers. However, being familiar with current reference sources can prove to be a challenge, since the number and nature of these resources is often a moving target as the online environment evolves at a rapid, previously unimagined, pace.

Librarians not only have to contend with the problem of quantity of Web resources but also determining quality of Web resources. Many of the familiar guideposts and markers that they once relied on to indicate credibility of print and stand alone electronic sources are gone or blurred when applied to the World Wide Web. Added to this is the challenge of convincing their patrons that caution and discrimination is required when using the Internet in an academic environment. Merely teaching Web page evaluation skills can be daunting enough. Coupled with the mandate to instill judicious use of Web resources is the obligation to reinforce the concepts of academic integrity--especially when the concept of plagiarism seems so foreign to many students and committing plagiarism is such an easy trap for them to fall into unwittingly.

Sara Sluss, a business librarian at California State University at Long Beach, describes the current information environment: “We are morphing from ‘library as a place’ to ‘library as a people and services available via the network’.” Sluss attributes much of the evolution of academic libraries to the changes brought about by the Internet. She describes the fast pace with which the Internet has changed our lives: “The Internet has become the fastest growing technology in world history. In the United States, it took 46 years after electricity first became publicly available before 30% of American homes were wired, and electrification had become

'part of the community' as a mature technology. It took 38 years before the telephone reached 30% of households, and 17 years for television. The Internet took only 7 years to reach that 30% benchmark." Sluss sees the impact of the Internet as affecting the very foundations of academic library culture. She notes that the Internet has become the preferred student venue for reading journals. She describes a change in the heart of the research literature, "The concept of 'journal' is becoming irrelevant . . . . This print object containing articles that editors felt had some kind of relationship to one another is often artificial. In the future the researcher will 'shop' for articles based on interest or need, not flip through pages seeking something of interest." In the near future, patrons will not be 'shopping' for articles but disparate pieces of articles to such a degree that the coherence of articles and issues of related articles will seem less and less relevant. The once dependable and clear divisions of types of information and distinct formats for distributing information will become less distinct and meaningful. Sluss continues, "It is likely that as a profession libraries and librarians will evolve into creatures that may seem completely unfamiliar to us now, but that will carry forward some of the same service values and traditions under which we work now."

At the heart of the evolution that Sluss and others describe will be the increasing physical removal of librarians from the patrons they once served face to face. Patrons will be removed from the information and sources of information they once had to grapple with in a more immediate, tactile manner. Librarians will also be distanced from the collections they once had direct responsibility for selecting and managing. This material distance from both patrons and collections does present barriers to many librarians. However, by designing virtual environments to provide access to information and to become more accessible to their patrons, librarians can create new and more powerful connections between their patrons and collections.

A rising job market and an aging workforce further complicate the continually evolving field of practice in which we work. The ACRL Ad Hoc Task Force on Recruitment & [sic] Retention Issues notes that there will be "[a]bout 39,000 job openings for new librarians between 1998 and 2000", resulting in a five percent increase in the number of academic librarian jobs. According to the Task Force, as these new jobs become available, there will be a shortage of academic librarians because "[m]any experienced librarians are expected to retire, switch to another occupation, or leave the profession for other reasons by 2008." Will this open the opportunity for non-librarian professionals to fill these vacant positions? Will budget cuts tempt administrators to eliminate vacant positions or consolidate them?

The American Library Association concurs. ALA notes that "[b]ased on 1990 Census data, almost 58 percent of professional librarians will reach the age of 65 between 2005 and 2009." They further note "[i]n 1998, 57 percent of professional librarians were age 45 or older." ALA describes "a 2000 survey published by Library Journal, [in which] 40 percent of library directors said they would retire in nine years or less."

The picture is not so bleak when one studies academic library salaries. Academic instructor salaries have risen across the board and academic librarian salaries "generally compare well to their colleagues in the classroom" (Terrell and Gregory). In a retrospective study of academic library salaries, Terrell and Gregory list the following data:



Table 1: Terrell and Gregory—A Look at Then and Now

<b>Year</b>	<b>Beginning Academic Librarian Salaries</b>	<b>Beginning Instructor Salaries</b>
1960	\$5,803	\$5,682
1970	\$8,719	\$9,360
1980	\$14,037	\$14,023
1990	\$24,045	\$25,306
1995	\$28,399	\$29,665
2001	\$35,883	\$36,620

Terrell, Tom and Vicki L. Gregory. A Look at Now and Then: Salaries of Academic and Research Librarians. 10 April 2003. Association of College and Research Libraries. 14 July 2003. <[http://www.ala.org/Content/NavigationMenu/ACRL/Events\\_and\\_Conferences/terrell.PDF](http://www.ala.org/Content/NavigationMenu/ACRL/Events_and_Conferences/terrell.PDF)>

In conclusion, academic libraries and librarians face many challenges today and tomorrow. The shape of tomorrow is sure to be filled with challenges including new technologies. Tomorrow's academic libraries will not provide services, sources, or delivery in the same ways as we did for most of the Twentieth Century. Terrell and Gregory prophesy, "for every old blackboard (and print book) there . . . [will be] hundreds of new electronic computers." Twenty-First Century academic libraries will operate in an environment in which for every print journal article there are copies available online and print periodicals are seldom used for student research. But the premise of our existence is the same—enabling access to scholarly research and literature.

The presentations at "Brick and Click Libraries: The Shape of Tomorrow" reflect the issues identified by practitioners and professionals across the country as the bleeding edge of change in a new century. We hope you enjoy and appreciate reading the research and reports reflected in the papers of these proceedings.

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## **From Grant to Website: Creating a Free, Online Index to State Periodicals**

Janet H. Ahrberg and Tanya Finchum

Janet H. Ahrberg is an Assistant Professor/Cataloging Librarian at the Oklahoma State University Library. She contributes original cataloging and name authority records for the department's participation in the cooperative cataloging program, PCC (Program for Cooperative Cataloging Program). She supervises copy cataloging and serves as a resource person for database maintenance activities and other projects. She is coordinator of the Library's Oklahoma Periodicals Index. She is past Chair and Secretary of the Oklahoma Library Association's Technical Services Roundtable. She is a member of the American Society of Indexers (ASI) and the Serials Interest Group of Academic Libraries in Oklahoma (SIGALO). She received her MLIS from the University of Oklahoma.

Tanya Finchum is an Assistant Professor/Documents Librarian at the Oklahoma State University Library. She provides reference assistance with government documents and is responsible for cataloging Oklahoma state government documents. She is a member of the Oklahoma Periodicals Index. She is a member of the American Library Association and within its Government Documents Roundtable is serving as liaison between the State and Local Documents Task Force Committee and the Cataloging Committee. She recently served as Secretary to the Oklahoma Library Association's Government Documents Roundtable. She received her MSLS from The University of Tennessee and recently completed a doctorate in Human Development and Family Science.

### **Abstract**

Access to state periodicals is often hampered by commercial vendors not indexing state publications or by the user not having access to subscribed, often expensive, commercial indexes. For libraries looking for new services, the creation of a free, Web-searchable index is an alternative. The index not only improves access, but can also provide a one-stop index source to state publications. In 1999 four library faculty members at Oklahoma State University instigated a project to develop a free, online, searchable index to key periodicals published in the state and about Oklahoma. A survey to selected Oklahoma libraries determined that an index to Oklahoma publications would be useful and, that if such an index existed, the periodicals would be used more frequently. The survey also determined which periodicals were indexed. With this information, the project moved forward, indexing software was purchased, and a student worker was hired. Funding for the projects came from two Amigos Fellowship Program grants. By June 2002, the Index became available to the public and links to the Index are now found from different types of libraries in the state.

### **Introduction**

The Oklahoma Periodicals Index began as a project by four library faculty members from the Oklahoma State University (OSU) Library. During the initial project discussions the librarians noted that local materials are often difficult to find. Even with the wide variety of commercial indexes available today, periodicals published by and/or about individual states are often

represented in limited amounts or excluded altogether. Another factor affecting smaller libraries is subscriptions to these indexes can be cost prohibitive. Thus, a free, online, Web-searchable index to these materials, accessible from the OSU Library website, could be of benefit, especially to users seeking current information in a timely manner. The Index project reflected the Library's mission to be an "information resource for all the citizens of Oklahoma through both direct access to its extensive collections and special services and by sharing these resources as needed with other libraries in the state" (OSU 42).

Funding for the project came from grant proposals offered through the Amigos Fellowship Program sponsored by the Amigos Library Services. The first grant paid for the survey. Once survey funding was secured the project members began considering the creation of an online index with support from a second Amigos grant. With no indexing experience, the members started researching the literature and other resources on how to build an online, searchable index. From the literature two relevant sources to the Index project were found. York's "Value-Added Reference Service: The North Carolina Periodicals Index" explains the development and benefits of the North Carolina Periodicals Index, a Web-based index, at East Carolina University's J. Y. Joyner Library (30-33). The other, Ahtola's "In-House Databases: An Opportunity for Progressive Libraries" describes, in depth, the process of building a database, such as an index, in three phases: planning; design; and testing (36-47). Another source, the American Society of Indexers' website also provides valuable resources and contact information.

From the start, the members sought assistance in developing the Index from experienced indexing editors and other professionals. The queries sent to those individuals primarily focused on: adhering and establishing indexing standards; selection of search engine and indexing software programs; elements of the data record structure; and choices for a controlled vocabulary. Andrews Peters of the Red River Index (1982) was contacted first. The Red River Index was an earlier attempt in the 1980's to index approximately fifty Oklahoma and Texas periodicals. Next, editors from three online indexes were solicited for help. These editors included: Maurice York, North Carolina Periodicals Index; Jean Kiesel, Bayou State Periodical Index; and Shirlee Smith, States' Periodical Index of Montana. Additional contacts were a professional indexer, Carolyn Weaver, and indexing instructor, Kathleen J. Haynes, a faculty member at the University of Oklahoma.

### **Grant I: The Survey**

The first phase of the Index began with the development of a survey in May of 2000 with \$300 awarded by Amigos. The survey's main objective was determining whether or not an online index of Oklahoma publications would be useful to library users. Two other survey objectives included: determining which periodicals were used the most in the libraries; and to attract additional funding, if indeed, the survey results indicated an Index would be useful. Using the American Library Directory, 1999-2000 (1999), the members developed a list of Oklahoma libraries to receive the mailed survey. The criteria for inclusion were: public libraries with user populations of 15,000 or more; libraries located at two-year, four-year, and graduate institutions of higher education; and other special libraries. A Microsoft Access database was created containing the name and address of the library, the contact person (usually the library director), phone and fax numbers, population served and any additional notes.



Next, a list of sixty-two periodical titles was developed using the Gale Directory of Publications and Broadcast Media (2000) and Ulrich's International Periodicals Directory (2000). The primary criteria for inclusion was that the periodical be published in and/or be about the state of Oklahoma. Again, a Microsoft Access database was created containing general information about the publications including title, sponsoring organization, address of publication, frequency of publication, and general notes about the publication's subject matter. A decision on format was made to exclude: newspapers, newsletters, brochures, pamphlets, and university and college magazines. Exclusion of these formats was based on the consideration that the amount of indexing time and manpower needed would delay the availability date of the Index.

The survey consisted of a list of the periodical titles with columns to mark if the library had a current subscription, the frequency of use of the periodical, and if the title was indexed either by a commercial index or an in-house publication. During the middle of August of 2000, seventy-seven surveys were mailed with an asking return date of September 1, 2000. A follow-up mailing was completed later in September and contributed to an overall return rate of 81 percent.

From the survey, four periodicals were selected for indexing, based on the highest amount of regular usage and current subscriptions. These publications included: The Chronicles of Oklahoma, Outdoor Oklahoma, Oklahoma Today Magazine, and Persimmon Hill. The results also indicated that there was an interest in improving access to Oklahoma periodicals, most notable The Chronicles of Oklahoma. Seventy-one percent of the returned surveys indicated that an index to articles about Oklahoma would be useful. Seventy-three percent indicated that if such an index existed, these periodicals would be used more frequently.

## **Grant II: Creating the Index**

The project moved forward with receipt of the second Amigos grant of \$1510 to pay for software and a student worker. The project members searched the Web for examples of online indexes. Two index types were found. One type was a traditional "back- of- the-book style" with cross references mounted on the Web. The other was a database index that was Web searchable, in which terms were entered and citations retrieved. Based on the project's goals, the latter type was considered to be the most appropriate. The members reviewed the indexing software programs Sky and Cindex. However, a bibliographic management software package, Reference Manager (RM), was selected due to its format being similar to a bibliographic cataloging record and its ease of use. It was also known to be compatible with the searching software, Reference Web Poster, already available on the Library's server.

In July 2001, the RM software was purchased and later downloaded onto the members' individual computers. The Library's Systems Department arranged to have one server dedicated to the project and set up a test database. During this testing time a series of decisions were made regarding the citation record in RM. The journal template was designated as the default with selected data entry fields. These fields included: title, author, volume number, chronological data, periodical title, keyword, subject heading, additional title, and series title. To reduce indexing time, a decision was made to select keywords from the articles rather than writing an abstract. Library of Congress subject headings were selected as the controlled vocabulary. Standards were

established for entering titles, author names, volume numbers, periodical title, chronology, pagination, subtitles, and keywords along with capitalization and punctuation. Additionally, a citation style that displays in Reference Web Poster was also selected.

By August 2001 each member had selected their choice of periodical to index and began indexing with the year 2000 issues working forward. Initially, only major articles were considered for indexing, but this decision was changed to include minor articles that were deemed important by the indexer. With only four periodicals being indexed in such a limited time span, there was concern that indexing only the major articles was not enough to substantiate the Index. It was important that the quantity and quality of the Index be evident to users from the beginning so they would return to use it. Photo essays, book reviews, editorials, and letters to the editors were excluded.

Initially the project leader reviewed the records for spelling, consistency, volume and page numbering, chronology, assignment of subject headings and keywords to ensure quality. During the fall and winter months, a majority of articles were indexed. In March 2002, the Index was previewed by the OSU library faculty and received favorable comments, as well as helpful suggestions. A student worker was later hired to enter basic citation information for retrospective issues beginning with the year 1999. Upon completing 100 hours of work, he had entered citations for issues almost to the beginning of the decade. The project members are gradually adding keywords and subject headings to these citations as time permits.

### **Online Preparation**

Before making the Index available to the public, a homepage was created. Ideas for its design and contents came from reviewing homepages of other online indexes. Working with a Digital Library Services Librarian, the Index's homepage was provided a URL address along with a citation for the Index on the Library's website under the "Indexes and Databases A to Z list." In addition, the Reference Web Poster search screen display was slightly altered by changing button styles and colors to coordinate aesthetically with the Library's website. Earlier, the members had agreed on the official name, the Oklahoma Periodicals Index.

The Index's homepage includes: scope; coverage, including what is not indexed; availability of the periodicals; how to search the index; basic search tips; a description of each of the four periodicals; a brief history of the Index project; information about the artwork used; a sentence crediting the Library and Amigos Library Services; the date of the site's last update; a source to send questions and comments to; and the URL address of the Index. The Index was officially launched to the public in June 2002 with the official web address: <http://www.library.okstate.edu/database/perindex.htm>. Updating the Index occurs on a continual basis by each indexer. The goal is to stay current as each issue is received.

### **Human Resources and Management**

A reference librarian, a cataloger, and two documents librarians were the original project members. Only one of the librarians had previous grant proposal participation. During the development phases, the project leader managed the grant proposals to their completion, and

coordinated the assistance from two library departments, as well as communicated with the publishers of the four periodicals. During the second phase, the original project leader moved out-of-state and another member assumed the project leader responsibilities. Soon after, another cataloging librarian joined the project to index the fourth periodical.

The administration was kept abreast of the Index's progress in several meetings. With the administration's help, a student worker was hired and a workstation within a department was made available. Other administrative issues discussed included: allotting indexing time for the librarians during regular working hours; indexing additional periodicals; future funding; updating the searching software; publicity; and the possibility of using staff for data entry.

As the project has progressed, the time spent managing has decreased significantly now that the indexers are trained and the Index is online. Having only one title to index, instead of several, helps provide consistency and quality to the indexing. The availability of personal issues provided by three of the four publishers helps keep the library copy available for users. The actual amount of indexing time varies according to the periodical, but in general, about four hours per issue.

### **Promoting the Index**

Promoting the Index is a task that the members began in the first phase with a poster session announcing the survey results to the library community at the Oklahoma Library Association annual conference. A follow up poster session was also presented when the Index became available to the public. On a larger scale, a flyer introducing the Index was included in the Oklahoma Librarians Association's bulk mailing to all its members throughout the state. Additionally, the Index was highlighted in articles appearing in two issues of the Oklahoma Librarian. The publishers of all four periodicals also received a letter announcing the Index's availability. The success of the promotion is evident in a recent Google search indicating the Index link is now found on public, academic, special, and school libraries' websites within the state along with a periodical publisher's website.

### **Conclusion**

The benefits of having the Oklahoma Periodicals Index can best be summarized by an academic librarian, from Rose State College who sent the project members this comment, "I've thought for a long time that we really needed an index to Oklahoma publications beyond the daily newspapers, and this fits that need. I think this will serve not only students of Oklahoma history, but all Oklahomans, and will make studying the past much more accessible, especially as additional retrospective materials are added. I'll be so excited to introduce this to students in our orientations. Thank you so much for your efforts. I just cannot express well enough what a service I feel that this is for our state" (Huffman).

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## **Streaming Audio and Course Reserves**

Dr. Alan Asher

Dr. Alan Asher is the Art and Music Librarian at the University of Northern Iowa. He holds an MM from the Cleveland Institute of Music, a DM from the Florida State University, and an MLS from Texas Woman's University. His research interests include electronic reserves, digital reference services, and collection development in the fine arts.

### **Abstract**

Electronic course reserve materials have become increasingly important components of college and university distance education programs and online course offerings at both the undergraduate and graduate levels. Students enrolled in music appreciation, music history, and music literature courses need access to sound recordings of the repertoire listed in course syllabi. Traditional course reserves place these sound recordings on reserve in the library and require the student to access the materials in the library. By digitizing the sound recordings and then creating sound files that can be located in the electronic course reserve module, the sound files can then be streamed via the Internet. Students can access streaming audio course reserves from any computer that has an Internet connection, a sound card, and headphones or speakers, thus eliminating the need for the student to come to the library to make use of the materials.

## **Weaving Our Common Threads: Developing Librarian/Faculty Collaboration**

Susan Avery and Jennifer Masciadrelli

Susan Avery is the Library Instruction Coordinator and a Research and Instruction Librarian at Millikin University. She has been actively involved in integrating research instruction into the university's curriculum, where it is significant part of the freshmen writing sequence. She co-presented a paper titled "Creating a Successful Faculty-Librarian Partnership for First-Year Students" at the Powerful Learning, Powerful Partnerships conference at the University of Iowa and has been a presenter for ILCSO (the Illinois consortium of academic libraries) forums, focusing on incorporating instruction into the curriculum. This past summer she also served as a panelist for faculty development workshops at Knox College aimed at building the faculty/librarian relationships through the integration of information literacy into the curriculum.

Jennifer Masciadrelli has been the Technical Services and Technology Coordinator and a Research and Instruction Librarian at Millikin University for 2 years. During the school year, instruction becomes her main focus as she meets several times with up to ten sections of the freshman writing course. When not teaching she attends to her other responsibilities including maintaining computers, supervising two staff members, and reference work.

### **Abstract**

In the interest of providing our students with the best possible education it is a necessity for librarians and faculty to work together effectively. Unfortunately, this does not always happen. This paper discusses three important criteria that must be present to build these relationships. The ability to communicate must be at the start of building a successful relationship. Second, cooperation is needed to begin to integrate library/research instruction effectively into a course. True collaboration will be an end result of effective communication and cooperation. This includes both the timeliness of the instruction and applicability of the assignments themselves. Like a fine tapestry, effective collaboration between librarians and faculty is built through an investment of both time and effort.

### **Tangled Threads**

As librarians we often become obsessed with the essential role that library/research instruction plays in the education of the students at our individual institutions. We know that freshmen enter college with preconceived notions and misconceptions about the research process. We know how important what we are teaching is to the students. We know that the college papers and research experiences of upper division students would be infinitely better if only they had the opportunity for a subject-specialist librarian to teach at least one class session in their major.

How can we gain this kind of access to our students? How can we develop partnerships with faculty that will be advantageous to our students and help faculty realize that we will provide their students with strategies that will be crucial to their academic success? How can we convince faculty that what we do will be an asset to their courses?

Establishing successful, working relationships with our faculty colleagues can be viewed as one measure of success by academic librarians. Yet for many of us, it can be one of the most difficult tasks we attempt to accomplish. Finding those common threads we share is critical to beginning to weave a relationship that will benefit both librarians and faculty and, more importantly, the students we both teach.

### **Warping the Loom**

Opening up the lines of communication between teaching faculty and librarians is a necessary first step. It is through communication that we can begin to cooperate and collaborate. Where do opportunities exist for us to open up the lines of communication? What do we bring to the campus that is unique? Taking an active role in campus activities and making our presence known beyond the physical library is extremely important. We, as librarians, must be proactive in promoting our skills and talents to the campus as a whole.

One first step can be the development of allies within departments - ask to attend a departmental faculty meeting and use this opportunity to promote services, including instruction, that you offer to faculty within a given department. Use e-mail as an opportunity to communicate with faculty information relevant to them and their teaching and research. Share information about new databases and changes to existing databases; create web pages or gateways with relevant links to their disciplines. It is through such outreach opportunities that librarians can make their presence known, thus creating a natural opening to begin the dialogue about course-integrated instruction. Oftentimes faculty will send their students to the library to use a specific resource, unaware that the library does not own or subscribe to it. When this type of situation arises it is another opportunity to open the lines of communication and encourage the faculty member to utilize the expertise of their friendly instruction librarian, perhaps for a session for their class, and even (perhaps) for themselves!

Seeking a mandate for the integration of library instruction into core courses on a campus will certainly accomplish the task of providing the instruction, but if teaching faculty are not receptive to such a mandate that task can prove difficult. Such a mandate at Millikin University initially resulted in mixed responses from faculty. Librarians at Millikin observed: "...instructors gave varied acceptance to the library instruction, ranging from true course integration to reluctant course interruption" (Avery, DeJoy, and McQuiston 84). But as time has progressed the reluctance on the part of the faculty has waned. In fact, the Millikin librarians now have a strong following of committed "believers" in what we do in the classroom.

When instruction is an integrated component of a core course it is very helpful for a facilitator to engage the collective group of faculty and librarians in conversations about the class in general and suggestions for what is and is not successful with regard to research instruction in particular. For example, the mandated instruction at Millikin takes place during Critical Writing, Reading and Research (CWRR) one and two, a required two semester course sequence. Communication has greatly improved with the inclusion of the librarians in the CWRR faculty meetings: we can answer questions and concerns and solicit feedback from the faculty on their feelings about potential changes in the library instruction. Often when new faculty start (which seems to be every Fall for those teaching CWRR) the integrated and required nature of the library instruction

isn't properly described to them, which creates a difficult situation for both the faculty member (who has already created a hard and fast syllabus) and the librarian (who has to spend time explaining that the instruction isn't optional). With the step taken to include librarians in the CWRR faculty meetings we are able to talk to all the new faculty members right away and ensure they understand how instruction is integrated into their classes.

### **Weaving the Weft**

Many of us may remember, either from our parenthood or childhood, the Sesame Street song that began: "Cooperation, makes it happen, cooperation, working together". The song illustrated an important life lesson that could be carried well beyond childhood. Cooperation is a primary step in establishing an effective faculty/librarian relationship.

One key to achieving an initial sense of cooperation with reluctant faculty is to focus on goals. As simple as it may sound, it is first necessary for us to realize we are working toward the same goals. Unfortunately, this step does not always take place. Both parties, the librarians and the teaching faculty, may be so caught up in what they wish to accomplish that they fail to note their shared commonalities. The realization that we are working toward the same goals, albeit with possible differences in our means, positively effects the opening of dialogue on the role library instruction can play in the curriculum. Unfortunately there will always be some faculty who do not view the instruction in a positive manner and librarians have no choice but to accept this, and hope that eventually these faculty will "see the light" and become more open to librarian instruction in their classroom.

How can we find our common goals? Items as simple as class syllabi and the mission statement and objectives of a library instruction program can serve as a starting point to open up dialogue and cooperation. Christine Larson makes this observation in her article "What I Want in a Faculty Member" when she states: "One of the most important characteristics of a faculty member, in my mind, is the recognition that librarians and faculty are in the same business"(Larson 261). She further notes that this realization should open the lines of communication, particularly with regard to student research assignments.

When preparing for an instruction session communication is key, particularly in courses where it is not a mandated part of the curriculum. Requesting and receiving a copy of the assignment and possible topics ahead of time will make your presentation much more effective. Would the class best be served in a teaching lab where students can engage in hands-on research with a librarian at their beck and call, or is it a small group that can meet in the library and begin their research with reference sources? Communication with the faculty member is the only way you can make these determinations. Usually it is not difficult to get this sort of information from a faculty member at this point, as they are open enough to contact you for an instruction session, but sometimes it can be difficult to get response from a busy faculty member which is why being persistent in your communications is important.



## Emerging Patterns

Although communication and cooperation in the integration of research instruction are important first steps, it is the collaboration of librarians and faculty that provides meaning to the instruction. Collaboration has long been at the heart of librarianship, but for teaching faculty who have long been autonomous this can present a challenge. Nancy DeJoy, Millikin University Coordinator of First Year Writing Programs notes that beginning such a relationship ... “requires a level of collaboration that many teachers are not trained to expect and with which they have no experience” (Avery, DeJoy, and McQuiston 87). This may necessitate the librarian take the lead in the collaborative efforts.

Emphasis on the timing and placement of research instruction is crucial to the student’s reception of this instruction. Students need to see an immediate benefit to the instruction. The timeliness of the instruction will be exhibited not only in increased attentiveness during the session, but in a research based assignment following the session. It is of utmost importance that librarians insist faculty assign a relevant project that will follow the research instruction before agreeing to teach the session. This is particularly important with freshmen classes where the students would otherwise have difficulty connecting the research instruction to the course.

Communication continues to be especially important once a collaborative teaching relationship has been established. In their article “Not Just Another BI: Faculty-Librarian Collaboration to Guide Students Through the Research Process,” Linda L. Stein and Jane M. Lamb write about the importance of the role of communication in librarian/faculty collaboration, noting: “An important factor in the success of any collaboration is the commitment to increased communication. Students need to receive compatible messages from the professor and the librarian” (Stein and Lamb 38). Failure to communicate effectively can result in the students receiving mixed messages. Encouraging faculty to preface a research instruction session with information on its importance prior to the session should be encouraged. At Millikin University we discourage faculty from referring to the session as “library day,” as well as discouraging them from using the mandated instruction time during class sessions they are not available for (whether for personal or academic reasons). Describing the class to students as research instruction, which, in fact, it is, gives it a different connotation. Unfortunately many students arrive in college with preconceived, negative impressions of the library. By calling these research sessions we are doing two things: more appropriately reflecting on the class content and clearly moving the focus to learning a specific skill.

Teaching faculty fulfill an important role in the individual instruction session. It is the responsibility of the librarian to share with faculty the importance of their role in this setting. The presence and commentary of a faculty member during the session continues to emphasize the importance the research instruction plays in the larger context of the course. This provides the opportunity for each of us – teaching faculty and librarian – to share with the students our areas of expertise, allowing students to then make connections between the research process and how it relates to the specific course. Continuing the research focus in conversations between the faculty and students following the instruction will provide additional opportunities for referrals and collaboration with a librarian.

Student skills vary and faculty expectations of these skills are not always accurate. However, this often is not the fault of faculty who, in most cases, may not be up to date on the research tools available. It is often a faculty member's disappointment in research-based assignments that causes them to be more receptive to the inclusion of research instruction. This disappointment can lead to collaboration in another way too: the opportunity to work with the faculty member on their research assignment. The need for communication and cooperation are key here, but when a good relationship has been established it is often an obvious next step to work on assignments together. Obviously this kind of close collaboration requires more intense communication and probably a longer-term working relationship between the librarian and faculty member, but this type of collaboration can be the most rewarding.

### **The Final Tapestry**

Understandably the establishment of any working relationship is built over time. Successful relationships between librarians and teaching faculty are no different. Through communication, cooperation, and collaboration the beginnings of the successful integration of library skills into the curriculum will begin. During this relationship, we will occasionally need to take time to reflect on what we have done and take stock of where we are going. A successful relationship is one that is continually evolving, always with an eye toward the end product.

Just as an artisan weaves a tapestry, we begin to build collaborative relationships with faculty. As the tapestry begins a predominance of loose threads will be evident, but with time and effort it becomes a work of art. So it is with building librarian/faculty relationships. When we realize we are striving for the same end product and invest sufficient time and effort the results will include rewarding relationships for both parties, and a more meaningful outcome for students, which is really what we are all working toward in the end.

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## **3D Virtual Libraries: The Way of the Future?**

Tara Baillargeon

Tara Baillargeon is an Assistant Professor/Social Sciences Librarian at Kansas State University. At Hale Library, she is responsible for collection development, instruction, and specialized reference in the social sciences. In 2001, Tara was a Graduate Assistant at the University of Western Ontario's Media, Information and Technoculture program, where she developed and taught labs for a course called "Cultures and Communities in Cyberspace". Part of this teaching experience included facilitating learning in an online classroom (WebCT) and assisting students in the development of interactive 3D multimedia web projects using Cyberworld Builder.

### **Abstract**

The educational shift to user-centered learning affects how academic libraries meet the needs of their users, specifically, distance or remote users. With the emergence of 3D interactive web environments, libraries have the option of meeting the needs of their users in multiple ways that were previously not possible. Three-dimensional virtual environments can offer the communicative opportunities of one-dimensional virtual environments, while providing a visual representation of self, space and context in which users can meet and interact. Because of their ability to contain video, audio, graphics, text and resources in an intuitive context, 3D virtual worlds allow information to be presented in a variety of ways and from many sources. With information clustered thematically in the world, students can stream through content in various ways. This enables students with varied learning styles to choose their preferred way of communicating in the world. Since little has been written about using 3D technology to meet the needs of remote library users, the purpose of this paper is to look at how 3D interactive websites are currently being used and how they may be applied to the library setting. The paper will also examine some of the benefits and challenges of implementing a 3D virtual library.

### **Introduction**

The educational shift to user-centered learning affects how academic libraries meet the needs of their users, specifically, distance or remote users. This shift in focus makes the creation and implementation of interactive, user-centered library websites imperative. With the emergence of 3D interactive web environments, libraries have the option of meeting the needs of their users in multiple ways that were previously not possible. Library websites created in 3D can provide a medium that enables users to interact with resources, librarians, and other library users and essentially, imitates a physical encounter with the campus library. Since little has been written about the potential use of 3D technology to meet the needs of remote library users, the purpose of this paper is to look at how 3D interactive websites are currently being used and how they may be applied to the library setting. This paper will also examine some of the benefits and challenges of implementing a 3D virtual library.

It is critical for librarians to understand the current technological landscape and to have an articulate vision of the patrons they intend to serve (Penka). Students increasingly prefer to use online resources, as indicated by the results of a recent University of Maryland University

College survey. The survey's results showed that an overwhelming number of students reported that web-based tutorials or guides were the most popular formats for receiving instruction in library resources and services (71.7%) (Kelly and Orr 181). These results are not surprising to those of us who have worked with college students. Students in a Harvard graduate class called "Learning Media That Bridge Distance and Time" used and ranked eight different learning media that they worked with throughout the semester. Less than half of the students ranked face-to-face interaction as their first choice as a learning medium (Dede, Whitehouse, and L'Bahy17). It is evident that students are embracing computer mediated learning environments. Since students are embracing computer mediated learning environments, the library should do all it can to meet the needs of these users. This can include investigating the usefulness of offering students a 3D virtual library that facilitates learning through the use of interactivity.

### **What is a 3D Virtual Library?**

Three-dimensional virtual environments can offer the communicative opportunities of one-dimensional virtual environments, while providing a visual representation of self, space and context in which users can meet and interact. Because of their ability to contain video, audio, graphics, text and resources in an intuitive context, 3D virtual worlds allow information to be presented in a variety of ways and from many sources. With information clustered thematically in the world, students can stream through content in various ways. This enables students with varied learning styles to choose their preferred way of communicating with the world.

Dynamic interaction is the most under-utilized feature of the Internet and potentially the most important. The use of 3D content in mainstream media is no longer confined to specially trained computer development professionals. Large companies, such as Adobe, Intel, and Macromedia have been introducing 3D into the market and it will only be a matter of time before technological barriers are overcome and adoption is widespread. Disappearing are the days when developers faced hardware limitations that force them to limit the use of 3D in their work. High-end 3D creation used to require a UNIX workstation, but the gap is closing and access to 3D development is increasing with the availability of 3D authoring tools (Hefner 62-64). An example of a digital library that takes advantage of some of the interactive capabilities of the Internet is GROW from the National Science, Mathematics, Engineering and Technology Education Digital Library. They have found that one way to alleviate information seeker frustration and to facilitate learning is to develop digital libraries that let users discover and interact with quality digital resources on a 24/7 basis (Budhu and Coleman).

Until recently, libraries that wanted to offer reference services to online users were limited to e-mail and live chat. More recently, courseware programs like WebCt and Blackboard have allowed interactive technologies to be moved to the desktop, but these programs are designed to mimic the classroom environment online and are not well adapted for one-on-one reference use (Coffman). The use of a 3D interactive environment would be ideal for meeting the information needs of the remote library user. Recent educational theories state that learners actively create knowledge and meaning through experimentation, exploration and the manipulation and testing of ideas in reality (Palloff and Pratt, "Building Learning Communities in Cyberspace", 16). A variety of 3D browsers are available and they all facilitate the creation of multi-modal, multi-user, navigable, and collaborative virtual worlds in 3D that are interconnected with standard

webpages and are accessible from standard computer platforms via the Internet, 24 hours a day (Borner, Hazlewood, and Lin 2). This is ideal for creating an interactive setting that enables patrons to access web-based resources.

Three-dimensional graphical multi-user systems can connect users to information resources and the expertise of librarians. A 3D representation of the library could be created using a simple 3D authoring tool, such as Adobe Atmosphere. Three-dimensional environments created with programs like Adobe Atmosphere allow users to interact not only with the virtual environment, but also with other users. This creates an opportunity to offer real-time virtual reference in the context of a library setting. Users typically maneuver 3D web spaces using their mouse or cursor arrows. For example, the user could electronically enter a 3D replica of their campus library. As they enter the library, they would see the reference desk located in its usual position at the west end of the first floor. An online patron with a reference question can move through the library over to the reference desk where a librarian in the form of an avatar greets him or her. Here, the patron is able to chat with the librarian and have his or her reference question answered.

Besides being a place for gathering information and reference assistance, the library is also a space where student groups meet with one another after class to work on projects. The 3D virtual library could respond to this function of the library by including a study or meeting room for students. This would be a virtual area where students could meet and discuss the projects they are working on. By meeting in a room in the virtual library, students would have access to resources, librarian expertise, and each other without having to leave their home.

In his article, "The Future of AI in Your Virtual Libraries," Balleste envisions a time when computers can give patrons a tour of the library (Balleste 3). Using 3D authorware, a representation of the entire library can be created in a three-dimensional world. A patron will be able to walk between the shelves, see books, go upstairs and downstairs, and visit the reference desk (Balleste 3). This would be most beneficial for the remote library user who ordinarily would not have such full contextual access to the library.

### **Potential Advantages of 3D Virtual Libraries**

Dourish and Chalmers identified three major paradigms for information navigation consisting of spatial navigation, semantic navigation, and social navigation. Spatial navigation involves mimicking our experiences in the physical world. Semantic navigation is driven by semantic relationships or underlying logic. Social navigation takes advantage of the behavior of like-minded people. Very few interfaces to digital libraries facilitate and support all three of these navigation paradigms, or are collaborative by allowing multiple users to explore information together (Borner, Feng, McMahon 279). Browser systems that facilitate 3D enable the creation of multi-modal, multi-user, navigable, and collaborative virtual worlds in 3D that are interconnected with standard webpages and are accessible from standard computer platforms via the Internet 24 hours and seven days a week (Borner, Feng, McMahon 279). When students are active in accessing information, communication with others, and sharing ideas, computer mediated communication is effective in building communities of learners across time and distance and in fostering collaborative environments that facilitate the construction of knowledge (Dede, Whitehouse, L'Bahy 8).

Distributed cognition is the dispersal of intellectual functioning across physical, social, and symbolic supports (Perkins 89). Emerging interactive web technology provides applications of distributed cognition beyond what can be achieved in face-to-face settings (Dede, Whitehouse, and L’Bahy 7). Students who have access to 3D interactive web environments potentially will have their learning needs met in multiple modes. Since information is offered through physical, social and symbolic supports, multiple exposures to information are provided to the student, maximizing their information gathering experience in the virtual library.

### **Challenges and Conclusions**

The creation and use of 3D interactive digital libraries is still in its infancy. Until its implementation becomes widespread, we are faced with numerous challenges. At this point, technological barriers are numerous, but not insurmountable. Some challenges include Internet network demands that can create a denial of service or slow service at peak traffic times, platform incompatibilities among participants, lack of learner familiarity with how the technology works, techniques related to overcoming problems when they are encountered, and insufficient bandwidth for digitally dense materials such as video, high density graphics, and simulations (Benjamin 8). Penka emphasizes that libraries must understand that cutting-edge, state of the art technology may only be able to serve a small percentage of the Internet population. Some patrons pursue technology with higher bandwidths and higher speeds, while others rely on older technologies (Penka). Thus, virtual reference environments that utilize three dimensions and synchronous chatting may not be a feasible option for all patrons.

Also, the question remains whether or not patrons will want to use 3D interactive libraries. Patrons may be intimidated by the format or simply prefer to have their information needs met in a traditional, text-based web site. When using chat in a virtual environment, it is important that users know that their communications are not secure and that they must use good judgment in what they share (Paloff and Pratt, “Building Learning Communities in Cyberspace”, 44). This is relevant to any interaction with the librarian or with other patrons if users choose to meet in a virtual library meeting room. There is also the possibility that patrons will use the medium inappropriately. As a result, inappropriate use would have to be addressed quickly to maintain the safety and acceptance of the medium.

There is also the risk that the effort to keep current with the pace of change in technology and tools can redirect focus from services and patrons to tools, and make the process of gathering information and assessing tools to arrive at an informed decision more difficult (Penka). Librarians face the ongoing and sometimes paradoxical challenge of keeping pace with technological change, implementing the new technology, and maintaining a perspective on the technology in relation to the library’s work and mission. We must remain aware of the danger that fascination with technology can obscure educational objectives (Benjamin 8)( Penka 2003).

The challenges that have been described are not unique to 3D virtual libraries, but are found in any setting where there is an introduction of new technologies. New and enhanced media will allow us to remotely carry out activities that used to require physical proximity. Technology will continue to improve, allowing a richer cyberworld to take shape, and easing the journey for those

who want to explore it (Haavind 12). For emerging technologies to work well for the library, patrons will need to become aware of its services. How libraries publicize and market these new services will be a key factor in their success (Coffman). Though the implementation of 3D virtual libraries is presently not without its challenges, it is a short matter of time before such environments become commonplace in the academic setting.

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## **Adapt or Die: Shaping the Future of Reference and Instructional Services**

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Connie Ury is the Outreach Coordinator, provides reference service, oversees general education library instruction curriculum, provides in-class and online library instruction at undergraduate and graduate levels, and develops Web resources. She has made more than 50 presentations at library and higher education conferences on topics relating to library instruction, reference service, customer service, and college level teaching. She has published more than 30 journal and proceedings articles, a number of them peer-reviewed.

### **Abstract**

“How did you do that?!” was a common question two librarians from Northwest Missouri State University received last year after a presentation at a state library conference. The question was asked because the librarians had mentioned eliminating a physical reference desk in order to provide reference librarians with more time for developing and delivering online library instruction and web resources. With this question in mind, this paper provides one possible model for medium-sized libraries to follow when restructuring reference service. The model includes conducting a literature review; communicating with management; assessing the literature review; and planning, marketing, implementing, and assessing a pilot project for removing the physical reference desk. When the restructuring project began, Northwest Missouri State University had a student FTE of 5363 undergraduate and graduate students, and Owens Library had 7 reference librarians.

Because public service efforts were no longer centered on delivery via a traditional reference desk, reference personnel were able to devote more time to developing and delivering

information literacy instruction. Building upon the foundation of a mature library instruction program integrated within four 100-level courses, librarians began to expand instructional programs that reached additional students in both 100-level and upper-level courses. In 2001-2002, 3583 students received library instruction; in 2002-2003, 6670 students received library instruction (Baudino et al. 16).

These expanded instructional efforts specifically focused on discipline-specific sources and strategies, as well as critical evaluation of information. As the university rapidly moved into online instruction and web-augmented courses, the librarians allocated major blocks of time to delivery of library instruction via web-based courseware, tutorials, and web sites. Additionally, librarians forged partnerships with academic departments and concentrated instructional efforts in required courses, reaching a large number of students at crucial points in their academic careers. These labors, while fledgling and fraught with challenges, allowed the librarians to interact with and teach discipline-based research skills rather than sitting at a reference desk waiting for someone to ask a question.

### **Conduct Literature Review**

Several factors led to the decision to investigate an alternative to offering traditional reference. Chief among these were low demand for in-person reference service (an average of three reference questions per hour), decreased student employees to help with two-tiered reference, and an increasing instructional and web publishing load. The Information Services team, which consists of all reference/instructional personnel and several other public service staff, asked the library's graduate student assistant, Kevin Grover, to conduct a literature review about reference service in academic libraries (Grover). His report highlighted a national decline in the amount of reference questions asked at a physical reference desk due to advancement in technological skills of users, remote access to full-text databases, library catalogs, and online instructional library materials. He noted that the libraries featured in his review responded to the decline in several different ways:

- Improved signage
- Redesigned the Reference Desk physical arrangement
- Marketed research consultations by appointment
- Staffed Reference Desk with non-reference librarians in a tiered approach
- Merged service desks (one focus point for service).
- Conducted focus groups
- Provided virtual reference service

### **Discuss with Dean/Director**

The Information Services team discussed the review of literature, and since the team had already tried the first four approaches (with limited success) to increasing reference service, several of the reference librarians were asked to discuss the review with the Dean of Libraries. The Dean thought the idea of a “one-stop shopping” customer service desk model for delivery of library services was intriguing and appointed a Task Force (consisting of an equal amount of

paraprofessionals and professionals) to consider merging the Circulation/Reserve and Reference/Information Desks.

### **Form Task Force**

During the Task Force meeting, the Information Services and Access Services team leaders presented information to the Task Force about the current reference and instructional environment. They reported on the graduate assistant's review of literature that outlined various models for providing reference service and the library's current Reference Desk/Information Desk situation with low volume and decreased student employees to cover hours of two-tiered reference service. They also presented information about the possibility of combining the Information Desk and Circulation Desk in order to provide an "on-call" reference service as needed.

In addition, the Task Force discussed an article a paraprofessional brought to the group called "Exploring New Service Models: Can Consolidating Public Service Points Improve Response to Customer Needs?" published in the Journal of Academic Librarianship (Flanagan and Horowitz). Staff members were very interested in developing a public service model that would decrease patron stress. They thought a combined service desk would provide effective help quickly, decreasing "run around" from one desk or area to another. The group discussed questions and concerns about student training, patrons waiting in line, and the number of on-call hours. All members were active in outlining possible procedures and made important compromises. They noted the need for flexibility and communication between teams during the project.

### **Plan Pilot Project**

The Task Force decided to recommend conducting a trimester-long pilot project that would create a combined Library Services Desk at the Circulation/Reserve desk located near the front door of the library. The Library Services Desk student employees would provide circulation (including ILL pickup) and reserve service, and answer building location questions (restrooms, telephones, water fountains, photocopiers, etc.). They proposed a referral system for ALL other reference questions, utilizing a prioritized list of methods:

- paging an "on-call" reference librarian
- asking a paraprofessional supervisor
- recommending the e-mail reference service located on the library homepage at <http://www.nwmissouri.edu/library/question/index.htm>
- filling out a hard copy "Get An Answer" form ("Get an Answer") developed for reference questions when librarians or paraprofessionals weren't available.

The current Reference/Information Desk would be removed. At the end of the trimester, all library employees (including student employees working at the Library Services Desk) would be asked to complete a survey regarding the effectiveness of the service. Data from a patron satisfaction survey about reference service would be compared with data from previous patron satisfaction surveys to judge the success of the project.

### **Market Pilot Project**

In order to “sell” the idea, the Task Force recommended a library-wide meeting to present the rationale, benefits, and logistics of the project. Before the meeting, the Task Force Secretary distributed minutes describing the recommended pilot project. The Information Services Team leader presented the information and invited questions, which were addressed by both the team leader and Task Force members. Library personnel favored the pilot project because of proposed benefits for the patron, and the Dean accepted the Task Force’s recommendation.

The library administration purchased a paid advertisement in the university newspaper describing the new Library Service Desk, the service was marketed using the university's electronic “Notices of the Day” messages, and the idea of “one-stop shopping” was marketed at fall semester college-wide faculty meetings. Also, a sign reading “For all questions, please ask at the Library Services Desk” was placed near the front door of the library.

### **Implement Pilot**

Implementation of the pilot project was a joint effort of Access Services and Information Services personnel. The library already employed a two-tier reference service with student employees referring non-location (where’s the restroom, etc.) questions to schedule librarians, using a doorbell system. Staff moved these doorbells to the new Library Services Desk. Later in the trimester, the library purchased two-way radios so that on-call librarians could also be contacted when they were outside of their office but still in the library.

To facilitate an “on-call” reference schedule, an Information Services team member created the schedule with input from team members and entered it into a scheduler software program available on the library network. The schedule was then made available to Access Services personnel and student employees at the Library Services Desk.

In order to provide temporary signage for the project, banners were purchased to cover former Circulation/Reserve signage that read “Library Service Desk” and a “Welcome to Owens Library” banner creatively covered up Information Desk signage. The temporary signage method insured easy restoration of permanent signage if the pilot project failed.

A large part of implementing the pilot project proved to be retraining student employees who had previously worked at the Circulation/Reserve Desk. Access Services paraprofessionals and Information Services Team members developed procedures and policies for referral of reference questions and student employees gave excellent feedback about the procedures once the pilot project was underway.

### **Assess Patron and Library Response**

Near the end of the trimester, the Task Force met to analyze the pilot project data collected from surveys given to patrons, student employees, paraprofessionals, and professionals. The patron satisfaction survey results collected during our usual fall trimester sampling week were quite positive. They indicated that 100% of students returning surveys (n=27) felt welcome to ask their question, 100% felt that the librarian understood their question, 93% felt that the question was answered to their satisfaction, and 100% would feel comfortable asking for assistance in the

future. These percentages compared favorably with past Fall Trimester reference sampling weeks.

Student employees responded that they felt less stressed about working at the desk because they could refer all questions to librarians. They were a little surprised to find out how helpful reference librarians are and that they are very willing to assist patrons. They gave constructive feedback, recommending changing some of the procedures and on-call hours.

Paraprofessionals and professionals alike felt that patrons were getting less “runaround” and the patrons liked coming to one central service desk for assistance. They felt students were getting professional answers by having all questions referred to reference personnel. Paraprofessionals suggested a better method for routing the “Get an Answer” forms from the night before to the librarian next on-call in the morning. Overall, both paraprofessionals and professionals were very pleased with the merger and thought the “one-stop shopping” service delivery method reached the patron with effective help quickly. Instead of sitting at a Reference Desk waiting for someone to come to them, this method gave Information Services team members the opportunity to develop online outreach materials, web-based library resources, and course-integrated online instruction that appeal to current students.

### **A Solid Foundation**

The implementation of this new model meant that librarians were free to pursue new directions and meet demands of a rapidly changing environment. One such direction was the process of defining partnerships that would allow them to have more direct contact with upper level students through e-mail, a presence in courseware, in-person instruction during classes, and by telephone in librarian offices.

Librarians at Owens Library have had a long and successful history with building partnerships with faculty and students through instructional contacts. Orientation to library locations and resources is provided via a required Freshman Seminar course. Searching skills, research strategies, and evaluation of information sources are taught via access points in three 100 level courses: Fundamentals of Oral Communication, English Composition, and Computers and Information Technology. The first two courses are required for all students as a part of the general education core and the computer course is a degree requirement for approximately one-half of the student body.

In addition to providing comprehensive library instruction at the 100 level, all students and faculty have access to an eCompanion library information site that is geared toward point-of-need reference. Modules within this site include hours, finding a topic, picking sources, getting articles, locating books, finding government documents, surfing the web, evaluating information, and citing sources.

### **New Horizons**

As the university rapidly moved into the arena of online and web-augmented courses, librarians began to deliver a great deal of this 100 level instruction online. The students access approximately one-half of the Freshman Seminar orientation activities from the Owens Library

web page. Library instructors spend classroom time during English Composition and Computers and Information Technology instruction facilitating hands-on practice of research and evaluation skills because the students complete a tutorial exploring research and resource specific material prior to class. Fundamentals of Oral Communication faculty requested library instruction, previously delivered in person, via the Web with a few faculty still supplementing the online tutorial with hands-on guidance and practice taught by librarians. Online instructional advances decreased the amount of time spent delivering face-to-face instruction and service, but proved to be labor intensive as librarians developed tutorials and web pages and struggled to keep them up-to-date.

During the 2002-2003 academic year, librarians initiated efforts to build partnerships with departments where large numbers of students complete an upper level course in which instruction in information retrieval and evaluation is tied to the curriculum. Using the college catalog, librarians generated a list of upper-level classes with a research component that were not receiving any type of library instruction. Next, the librarians prioritized the list based upon prior repetitive reference and instructional inquiries. Librarians then reviewed the priority areas and individual librarians selected course instructors to contact via email. The email message included types of research assistance that the librarian could provide including providing in-class presentations, meeting with students for individual research consultations, forwarding email messages with research tips, direct linking to full text articles, and posting documents and links into courseware sites. Librarians typically selected departments to contact within their own area of expertise. This library instruction marketing strategy generated increased library components within the geography, education, and computer science departments. During 2003-2004, the librarians examined class offerings to investigate courses that might include a library component. The librarians capitalized on relationship marketing by contacting instructors that would positively respond to integrating library instruction into course assignments.

Each librarian is also responsible for visiting a departmental meeting to market upper-level library instruction. Folders containing bookmarks, research advantage brochures, instructional services for students, and library services for faculty highlight the benefits of integrating library components into courses. A large-scale partnership that has been generated by these marketing initiatives is currently in its second trimester of existence. Librarians are teaching database (proprietary and web) searching skills, evaluation of information sources, and citation expertise in collaboration with faculty for the Management Information Systems (hereafter MIS) course required of business majors, approximately 270 students per year.

### **Reference Service Outcomes**

One of the main objectives of the old reference desk model is being accomplished in this new scenario—that of providing one-on-one consultations with a hard to reach segment of students that librarians perceived were underserved in the past. Librarians demonstrate all aspects of the MIS assignment (evaluative essays documented with parenthetical citations and works cited) in class or in courseware and are now able to discuss an essay with any student who has questions after receiving his/her grade. While this instruction has provided librarians with new opportunities to reach students, it has also strained their schedules as they create curriculum,

answer student questions about their papers, and juggle grading MIS papers with deadlines for library instruction in 100-level and other upper-level courses.

The librarians plan to reclaim some of the time allocated to this new initiative as they improve the curriculum, refine supporting online resources, and get past the learning curve required for manipulating web-based courseware. They have already identified an area in which they can save time by delivering the instructional content via the library's web site and linking to it within courseware, thus eliminating hours previously spent entering content into each class section's specific site. They have also concluded that more explanatory material may reduce the number of questions asked about the assignment.

### **Conclusion**

Fifteen years ago, librarians at Owens Library were overloaded at the reference desk and struggled to handle the traffic, but were often gratified with the amount of time they were able to devote to teaching information literacy and research skills at the desk. As the online environment and remote access to databases decreased our ability to teach students in the library at a traditional reference desk, the Information Services Team reallocated personnel and blocks of time to developing new in-class and online instructional services and resources. As the librarians have devoted time to forging instructional partnerships with departmental faculty, they have regained their ability to teach students information literacy and research skills. They currently find themselves handling a high volume of public service but this service is delivered through web-based resources and instructional partnerships, rather than at a traditional reference desk.

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## Reference Recycling

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David Darryl Bibb is an Assistant Professor and the Distance Education Librarian at Southeast Missouri State University in Cape Girardeau, Missouri. He is also an adjunct professor at the University of Missouri - Columbia. He has worked in libraries, archives, and museums for more than twenty years and holds master's degrees in both library science and historical administration and museum studies. His background includes serving as head serials librarian, head of public services, and as a reference librarian.

### Abstract

This paper discusses how to use "reference recycling" to improve service to patrons while saving money. The process works through a systematic examination of recently updated works. The older edition may be useful to another library, distance center, or other agency.

### Introduction

While many on-line materials are available to assist students, there is still a tremendous need for information in hard-copy format. If we fail to provide adequate print resources, we perpetuate the myth that everything is on the Internet or otherwise accessible electronically. Furthermore, one of the truths of library life is that funding always lags behind the increasing costs of materials, and libraries must often keep materials far longer than they might want to. In order to partially alleviate this problem an organization can make use of a method known as "reference recycling."

Reference recycling is a cooperative endeavor in which a library or group of libraries sends older volumes to another library or distance center; yet, this concept is not a new one. Programs such as the Cooperative Reference Service for Rural Illinois Project, established in 1988, recycle reference materials in order to better support their patrons' needs for information. Items such as Books in Print, Physician's Desk Reference, Merck Manual, along with numerous others, provide valuable data that can be shared without compromising the quality of information or the budget of the institution. By January 2001 the Illinois Project had over 126 participating libraries donating almost 500 books a year to other libraries (Bruss, Caltvedt, and Mathias). Kent Library at Southeast Missouri State University is transferring older editions of reference works to its distance centers so that students enrolled in classes away from the main campus have expanded holdings.

### Background

The author has been engaging in reference recycling since serving as the Serials Librarian at the University of Kansas School of Medicine at Wichita (UKSM-W) between 1986 and 1988. At that time, very few databases were available on-line and paper indexes were expensive then just as they are today. By sending the monthly and quarterly editions to other libraries in the area when a cumulative edition arrived, the life span of these materials was extended and the community was better served. Likewise, when the Wichita Clinic decided to reduce their



library's holdings, they donated their back files to the UKSM-W library. This provided UKSM-W with an excellent foundation upon which to build its collection, extending both the longevity and the availability of the items.

Reference recycling is primarily comprised of single items rather than groups and there are a number of criteria that must be considered and adhered to. First, all of the items must still be beneficial. A 1911 book on syphilis may be interesting, but it is no longer accurate. Librarians must also take into account that a resource on Alzheimer's Disease that is already fifteen years old is also nearly worthless. Medicine and other scientific realms progress so quickly that their literature is outdated within five years. Other fields may not be as time sensitive; for example, an older edition of an unabridged dictionary will still be useful to library patrons. While it is true that opinions about an individual's works may change through the years, literary criticism is another area where age is not critical because the works being critiqued do not change.

At Southeast Missouri State University we have developed a process whereby our distance centers are given consideration when reference items are updated. In some instances it is simply a matter of an older volume such as Index Medicus being given to the Distance Education Librarian for delivery to one of the distance locations. Other cases require closer scrutiny in order to determine the current information value. Many older reference works are too out-of-date to be sent to another library. Kent Library's five-year rotation policy on encyclopedias is a process designed to keep the collection relatively current and encyclopedias are an example of works that retain their value over a long period, especially when annual yearbooks are also purchased.

The earliest article the author has discovered that mentions reference recycling was published in 1991 describing how, in 1988, public libraries in Illinois began a cooperative project to stretch their resources. The project has grown over the years and includes not only public libraries but also academic libraries (Mastis).

### **Guidelines**

What guidelines or criteria should be used in addition to age for determining whether or not a reference item is worthy of being recycled? Several questions need to be asked about each item considered for recycling. These include: What purpose is the item to be used for?; What percentage of the information is still accurate?; and Is it possible to supplement the data provided in the older resource with other materials so that patrons can obtain the information they need? Of these, how the information is going to be used is the most critical in deciding the fate of a work because that is what ultimately determines whether or not the item is still valuable enough to keep. The aforementioned book on the treatment of syphilis is a wonderful resource for someone working on the history of medicine; however, it is meaningless - perhaps even dangerous - to someone who is researching current methods of treatment. It is our duty as librarians to help patrons understand that their needs affect the type of materials that will be beneficial to them. In the author's experience students will frequently use a book, any book, to do a report without attempting to determine the usefulness of the resource.

The age of an item is usually the first thing considered when assessing its longevity. In the case of the Illinois project, only one item recycled can be five or more years old. Most items are limited to the past two or three years. In the case of Southeast Missouri State, we have allowed some items as old as ten years to be recycled, but only after a careful review of the other criteria.

Other factors that must be evaluated, using established recycling, criteria include the percentage of the information that is out-of-date. In the case of a dictionary the basic word structure of the English language has not changed; consequently, the useful life of the dictionary is far longer than for some other materials, such as computer, medical, and scientific data. In the case of an encyclopedia only the current events items will be substantially out-of-date with an older edition. Looking up the history of England would not be affected by the age of the entry, unless the person is dealing with the latest events. As mentioned above, in the case of encyclopedias, if the yearbooks are purchased it increases the useful life of the works.

Supplementing the information in recycled works is the key to insuring the items are not going to be a disservice to the recipient organization. In most cases the existence of statewide consortia that provide access to some current periodical databases, such as EBSCOhost or ProQuest, will probably suffice. In addition, free on-line services such as that offered by Merriam-Webster can enable users to check for words not in the older unabridged dictionary. Other inexpensive resources, such as almanacs, can also provide current information at an affordable price.

### **Conclusion**

Reference Recycling can be a useful and valuable tool in providing services to libraries at all times. Such a tool is particularly useful in times when budgets are shrinking. By wisely reusing expensive materials, we can not only show the communities we serve that we want to provide good service to them, but also demonstrate that we understand we should not squander the money entrusted to us.

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## **Leveling the Playing Field for Patrons with Special Needs**

Professors Christopher R. Bloss, Kelli K. Murphy, and John Van Balen

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### **Abstract**

This paper discusses the collaborative grant offered by Hewlett-Packard (HP) and the Association of Specialized and Collaborative Libraries (ASCLA) in 2002. This pilot project grant offered two assistive/adaptive workstations to four public libraries and to two academic libraries. While discussing the collaborative grant effort, this paper outlines the pilot project, provides a discussion of the equipment, and mentions training use.

### **Introduction**

While libraries across the nation and abroad face either stagnant or even decreasing budgets, the problem of providing equitable access and appropriate accommodations to individuals with special needs remains a challenging issue for both academic and public libraries. Limited budgets and fewer staff positions contribute to the obvious difficulties in creating and maintaining an atmosphere supporting patron diversity and equitable accommodations. Due to these barriers, among others, libraries often effect changes that require little personnel involvement or financial investment, such as Braille overlays for computer keyboards and large fonts on library web pages, in order to promote accessibility the best way possible under the circumstances. The problem becomes even more complex and unmanageable because there is little time available for professional librarians and staff to interact with individuals with special needs, attend training or teach training sessions, or create important collaborative working relationships with disability service organizations within the community. The barriers, and our

best responses, often lead us to a false sense of accomplishment, when in reality the needs of many patrons with disabilities remain largely untreated.

Clearly, delineating obstacles is easier, and less costly, than creating equitable access for our patrons, and while our minimum efforts in the face of barriers and financial adversity assist some patrons, we usually only succeed in marginal compliance with the Americans with Disabilities Act (ADA), rather than full and unbiased acceptance. Additionally, marginal efforts on the part of libraries usually produce marginal outcomes, where patrons with disabilities are inevitably excluded from fully exploiting the resources offered by their libraries. Many patrons become frustrated or angered because their libraries are unsuited to accommodate even their most basic needs. Some patrons with special needs visit their local library once, realize the deficits—whether in offering adequate space for wheelchairs, disabled parking, screen magnifiers, or reading software for computers—and never come back. Tragically, even our best efforts under insuperable barriers leave many patrons with the feeling that their library is simply not meant for their use.

The daily barriers we experience, such as budget and limited staff, mean that as librarians we need to seek other options in order to provide equitable access to our diverse patron base. A recent option includes collaborative partnerships between corporate entities and library organizations in order to offer assistive/adapative technologies that provide a new and different level of access for our patrons with disabilities. One recent opportunity includes a grant stemming from a collaborative initiative between Hewlett-Packard (HP) and the Association of Specialized and Cooperative Library Agencies (ASCLA), a division of the American Library Association (ALA). The result was the Library Technology Access pilot project grant. The remainder of this essay provides a report of the LTA grant, as well as its impact with patrons, from one of the two recipient academic libraries. The overarching purpose of this brief essay is to support the concept of collaborative relationships between corporate entities and libraries in order to create a positive learning environment and to endorse lifelong learning among our patron base.

### **Review of the LTA Grant**

HP remains a stalwart corporate entity on issues of accessibility. Carleton Fiorina, CEO, explains HP's role in establishing equitable access for all individuals regardless of disability or difference:

From the beginning of our reinvention at HP, we said that all our actions would be aimed at connecting everyone to the power of technology, harnessing it to lift human potential. In keeping with that promise, HP has made a public commitment to provide leadership in designing accessible products and services for people with disabilities. (Hewlett-Packard 2003)

True to their resolve, HP in collaboration with ASCLA created two computer workstations, along with concomitant software packages, for six libraries. The collaborative effort resulted in creation of the LTA grant in 2002. This competitive pilot project grant provided two workstations to six libraries in the United States—four grant awards were reserved for public libraries, and two were offered to academic libraries. The grant awards were offered to the

following libraries: Cleveland Public, Johnson County, Milwaukee Public, San Diego Public, Arizona State University, and the University of South Dakota (Hewlett-Packard 2003)

Each recipient library received two computer workstations. One workstation was designed and equipped with software to aid individuals with low-vision or blindness; the second was created to assist individuals with learning differences. Additionally, the LTA grant included ergonomic furniture: electronic desks, provided by SteelCase, that may be manipulated to various positions with the touch of a button, as well as ergonomic chairs in order to best serve patrons' needs. Both HP and ASCLA announced LTA grant awards in January 2003; installation and training occurred at each individual library's discretion in order to assure optimum participation by library staff in training.

HP and ASCLA contracted with TransAccess to offer training on the various pieces of hardware, software, and ergonomic furniture. Trainers from TransAccess visited each recipient library and provided two training sessions. TransAccess was also instrumental in suggesting software and hardware requirements during the creation of the LTA grant. TransAccess is a nonprofit organization working with businesses and communities to provide computer access and social integration for individuals with disabilities. The two-day training seminar included installation of the equipment on the first day, and training sessions on the second day.

### **Description of the Two LTA Workstations**

One workstation, created for individuals with low-vision or blindness, includes the following software packages: JAWS, OpenBook, and ZoomText Magnifier. JAWS and OpenBook software packages read scanned or Internet text to patrons. The ZoomText Magnifier is a software package that provides patrons with various viewing selections so they may scan, magnify, and change font colors in order to increase their ability to read or hear the text they select. This workstation also included an Aladdin Closed-Circuit Television (CCTV) that may be used to magnify printed materials, change color overlays of text, and mark text with horizontal or vertical highlights. Both computer workstations are equipped with high-end scanners in order to offer the best possible text resolution for patrons.

The second workstation, designed to assist individuals with learning and mobility differences, includes a Tracker2000 device, Kurzweil3000, and Read and Write Gold 6.0. The Tracker2000 is an infrared device that sits on top of the flat-screen computer monitor and tracks an infrared adhesive strip that may be applied to a user's head, cap, or pencil and allows the user to create text using the on-screen keyboard. The Kurzweil3000 allows patrons to scan multiple pages of virtually any text—including reading assignments and web pages—select a synthesized voice, determine the speech speed, and listen to the text using headphones. Read and Write Gold highlights text, reads text, offers a comprehensive dictionary, and provides word prediction for patrons writing papers; additionally, Read and Write Gold allows patrons the opportunity to save files as MP3s or WAVs.

One of the most advanced uses of the software packages include scanning a document using the Kurzweil3000, saving it as a RTF file, opening the RTF file in Read and Write Gold 6.0, and saving the text as either a WAV or MP3 file. With this method, students can scan documents,

save them to a CD, and listen to them at home, in their car, or in computer labs outside the library.

Additional external devices offered with the pilot project LTA grant include various keyboards and pointing (mice) devices. One keyboard, for example, is four-times larger than the standard keyboard; another offers easy accessibility for individuals who may experience loss of mobility in one or both arms. Pointing devices include a standard mouse, a roller-ball mouse, a joystick device, and a touch-pad. All of the equipment is available for checkout to patrons of I.D. Weeks Library at the University of South Dakota.

The monetary sum, including training and installation, of the LTA grant reaches approximately \$16,500, but the long-term significance for patrons is of indescribable value. Using various local marketing strategies, as well as assistance from HP and other disability service organizations, helped educate library patrons about the assistive/adaptive technology available from the campus library at the University of South Dakota. Ongoing marketing strategies are planned within the campus and the state.

### **Lessons Learned**

All librarians at the University of South Dakota were asked to attend training sessions provided by TransAccess in order to demonstrate the equipment to the various departments they serve. Additional training sessions have been offered to the faculty of the School of Education, administrative agents of the Law School, students of Special Education, as well as individual sessions. Patrons wishing to use the LTA equipment may contact the on-duty reference librarian for assistance with any aspect of the software and hardware available; additionally, all librarians are available for appointments beyond normal duty hours.

Through a strong collaborative relationship with campus Disability Services, more students are finding methods to better exploit library resources using the LTA workstations. At present, the two workstations have been password protected to ensure users attend a short training session—these training sessions also allow librarians the opportunity to talk with patrons and ensure that patrons are using the best software to meet their individual needs.

Since equipment installation in January 2003, patron use has tripled, including law school students, advanced degree-seeking students, and several members of the local community. The assistive/adaptive workstations have offered a degree of unparalleled access to the academic library at the University of South Dakota. ASCLA recently awarded all six recipient libraries with a commendation for offering new levels of access for patrons with disabilities.

### **Conclusion**

It is virtually impossible for libraries to offer optimum solutions for individuals with special needs given current budget concerns. The problem with equitable accessibility is complicated by obvious barriers of budget and personnel time. While the problem of diversified access remains a prevalent issue for discussion among information professionals, the solution includes collaborative partnerships between entities such as HP and ASCLA.

Scholarly studies should be devoted to the use of the LTA grant at the six recipient libraries. The involvement of corporate entities is the only method for librarians and libraries to counter the problems of budget and personnel down-sizing. Describing the LTA grant, Jim Weyand, Vice President and General Manager of Hewlett-Packard explained, “The Library Technology Access project demonstrates the power of public-private partnerships that increase access to technology for individuals with disabilities” (Hewlett-Packard 2003). Libraries in the new age of technology must endorse collaborative methods of access in hopes of ensuring the best possible use by a diverse patron group. The LTA grant offered by HP and ASCLA is a pilot project that will prove useful, with appropriate marketing, for a wide array of patrons and libraries.

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## One for All and All for One!

Susanne Boatright, Marty Miller, and Mary Northrup

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Marty Miller, Reference Librarian at Longview Community College, began her professional library career at the Spencer Art Reference Library at the Nelson-Atkins Museum of Art. She also later served as the part-time Assistant Archivist for NAMA. She received her MA in Art History from the University of Kansas, where she also served as a student library assistant in the Murphy Art and Architecture Library, and her MLS from Emporia State University. She currently volunteers at the Midwest Center for Holocaust Education's library.

Mary Northrup, Reference Librarian at Maple Woods Community College, has worked in public and special libraries. She received her M.L.S. from the University of Wisconsin-Milwaukee. She is the author of American Computer Pioneers (Enslow, 1998) and Short on Time, Long on Learning (Linworth, 2000), and numerous periodical articles for children, teachers, librarians, and writers.

### Abstract

The Metropolitan Community College District includes five colleges and nine locations in the Kansas City, Missouri area. The District provides quality, low-cost education, with over 70 career or transfer degree programs for more than 40,000 students. Each college has a unique culture and tradition, as well as an area of specialization not shared by the other campuses. The Penn Valley campus is noted for its Nursing and Allied Health Programs and Longview College for its Automotive Program and Writing Across the Curriculum. Maple Woods offers Sign Language Interpreting and Veterinary Technology programs. Blue River has the Police and Firefighter Academies. The Business and Technology Center provides training and skill assessments for Kansas City area businesses and organizations. Historically, the libraries that serve each campus have developed their collections with the needs of their particular student populations in mind rather than the needs of all the students in the District. However, the growth in the number of classes taught over the Internet, as well as looming budget cuts for any educational institution in the state of Missouri, made at least some form of collaborative collection development imperative. The librarians at MCC responded to this challenge in unique and creative ways. First, they agreed to share costs for database subscriptions so that all district employees and students would have equal access. Second, they redesigned their web pages, so that all the pages had the same formatting. Third, they published and promoted digital learning tools and tutorials on the new web pages. Fourth, for the Business and Technology Center, which has no library, librarians developed unique and creative ways to help that campus provide library services to its students and faculty.



## **Rethinking Library Instruction**

Clifton W. Boyer and Karen Swetland

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Karen Swetland is an Assistant Librarian at the University of South Carolina Spartanburg. She received her B.A. in Mathematics and her M.L.I.S. from the University of South Florida where she also taught information literacy courses. In 2002 she presented a poster session “Problem Solvers: Whom Do College Students Consult in the Research Process?”, at the S.C. Library Association/Southeastern Library Association Joint Conference.

### **Abstract**

“Rethinking Library Instruction” offers alternative methods to traditional freshman library orientation and instruction programs that many academic libraries rely upon as the basis for their information literacy programs. Conclusions are based on profiles of the state of academic libraries, today’s generation X & Y undergraduates, and results from a survey of undergraduates on how they learn to find information and the kinds of sources they value.

### **Introduction**

“We should really rethink the way we do library instruction” was a statement made by a librarian after a particularly frustrating library class. In this case, a group of seniors failed a quiz that tested their understanding of basic library information taught to them during their freshman year. The comment sparked a discussion that eventually led to the idea that information literacy programs based in the freshman year may need to be eliminated or modified to better serve the students.

To gain a better understanding of students and their information needs and habits, a survey was created to determine who they turned to when they need help finding information; what kind of resources they were using; when did they want help; and where were they willing to go to get assistance. In addition to surveying the students, it was also noted that there are other factors that have an impact on revamping library instruction programs. The students themselves are the primary factor. Current models of library instruction do not always take into consideration the characteristics of today’s generation X & Y. The second factor is the current academic library environment. Unfortunately, trends and patterns place limitations on what can realistically be accomplished.

This paper will discuss the state of academic libraries; examine characteristics of Generations X & Y; present selected data from the student survey; and offer possible changes that can be made in library instruction programs.

### **The Current State of Academic Libraries**

One way to evaluate the state or condition of libraries is to look at the issues and challenges that are universal to the profession and institution. Almost all libraries (public, academic, school, or special) are bound together by specific issues regardless of the size or location. For example, in 2003, there are few libraries not dealing with shrinking budgets and rising costs of resources or facing the affect of information technology on library services. By identifying specific problems that are common to all, a general overview of the “health” of libraries can be determined and discussed. However, each kind of library deals with problems unique to their mission or with issues that have greater repercussions within the community it serves. For instance, Internet filtering software issues being more prevalent in public and school libraries than in college or university libraries would be an example.

In 2002, the Association of College and Research Libraries’ (ACRL) Focus on the Future Task Force released a report on the top issues that academic libraries are currently facing. According to W. Lee Hisle, chairman of the task force, the top issues are recruitment, education, and retention of librarians; role of library in academic enterprise; impact of information technology on library services; creation, control, and preservation of digital resources; chaos in scholarly communication; support of new users; and higher education funding (Hisle 714).

### **Generations X & Y**

Generation X is the bridge between traditional and modern values and visions. Born between 1965-1976, this group’s name is traced to Douglas Coupland’s book “Generation X” (Lloyd; Wolburg). Other known names for this group include Busters, Slackers, Xers, Post boomers, Shadow Generation, Generation 2000, MTV Generation, Thirteeners and Thirteenth Generation, being the 13<sup>th</sup> Generation produced in the USA (Wolburg; Infante). Common childhood experiences included recession plagued parents, latchkey memories, and the slogan “Just Say No” (Vogel). Their faces are often found in undergraduate classes sitting intermixed among their Generation Y classmates. Xers believe the traditional company ladder should be respected and observed even in a prosperous economy (Penttila). They are dependable to get work done on time and are highly task oriented, often using advanced technology to accomplish their goals (Pekala). Flexible schedules, learning new skills, and challenging projects are important motivators (Pekala). Work supports their leisure habits (Pekala). While they value several years with one employer, they are willing to forego stability (Penttila). Loyalty lags with people not the organization. “They don’t quit the company – they quit you” (Pekala).

Generation Y creates their own values. Born between 1977-1997, this population of eighty million is also known as the Echo Boomers, Millennials, Nexters, I Generation, and Speeders (Lloyd; Anderson; Johnson; Vogel). This generation is the most “ethnically diverse generation in American history”(Morton). Childhood experiences include highly structured educational settings such as all-day kindergartens, large weekly allowances and strong pressure to “Just Do It” (Vogel). They expect to start at the top with a sense of entitlement and have access to the latest

trends and developments in all things including technology (Lloyd; Pekala; Morton). They absolutely demand constant feedback and rewards (Lloyd). Politics and healthy living are not important (Lloyd). Brand loyalty is clear but can change quickly (Wolburg). Blatant and obvious messages are irritants (Morton). These “service learning” graduates seek tasks that will impact the world (Winiarskyj). Work and leisure must be flexible and are viewed as one (Lloyd). They expect two-way conversation with the right to challenge (Elkin; Morton). Several years with one employer means they are not advancing (Pentilla). Loyalty is never given to you or the company.

### Survey Results

Table 1

How would you prefer library assistance? Ranked in order of preference, top being first preference.

<b>Freshmen</b>	<b>Sophomores</b>	<b>Juniors</b>	<b>Seniors</b>
One-on-one assistance [reference desk]	One-on-one assistance [reference desk]	One-on-one assistance [reference desk]	One-on-one assistance [reference desk]
Printed handouts	Printed handouts	Printed handouts	Printed handouts  Communicating through e-mail
Self-guided on-line tutorials or help screens	Self-guided on-line tutorials or help screens	Self-guided on-line tutorials or help screens  Classroom Presentation	Printed handouts  Communicating through e-mail
Classroom Presentation	Communicating through e-mail	Self-guided on-line tutorials or help screens  Classroom Presentation	Classroom Presentation
Telephone	Classroom Presentation	Communicating through e-mail	Self-guided on-line tutorials or help screens
Communicating through e-mail	Telephone	Telephone	Telephone
On-line chat rooms	On-line chat rooms	On-line chat rooms	On-line chat rooms

Table 2

What factors influence your decision when selecting articles from a library database? Ranked in order of preference, top being first preference

<b>Freshmen</b>	<b>Sophomores</b>	<b>Juniors</b>	<b>Seniors</b>
Content relevant to my topic	Accuracy of information	Accuracy of information	Content relevant to my topic
Full-text availability	Content relevant to my topic	Content relevant to my topic	Accuracy of information
Accuracy of information	Full-text availability	Full-text availability	Full-text availability
Includes bibliography or references	Unbiased presentation of information	Includes bibliography or references	Unbiased presentation of information
Unbiased presentation of information	Length of article	Unbiased presentation of information	Includes bibliography or references
Format (Paper vs. Microfilm)	Includes bibliography or references	Format (Paper vs. Microfilm)	Author Expertise
Length of Article	Format (Paper vs. Microfilm)	Author Expertise	Date of Publication
Date of Publication	Author Expertise	Length of Article	Format (Paper vs. Microfilm)
Scholarly/Refereed/Peer Reviewed	Date of Publication	Printing Costs	Length of Article
Intended Audience	Intended Audience	Date of Publication	Scholarly/Refereed/Peer Reviewed
Author Expertise	Printing Costs	Scholarly/Refereed/Peer Reviewed	Printing Costs
Printing Costs	Scholarly/Refereed/Peer Reviewed	Intended Audience	Intended Audience

With close analysis both charts show little change among freshmen and sophomores, but show changes emerging with juniors and becoming prevalent with seniors. Academic status impacts library assistance preferences (see Table 1). All undergraduates indicated one-on-one assistance at a reference desk as their first preference for library help. Printed handouts were their second preference among all four groups. Academic status directly impacts the value of classroom presentations compared to self-guided on-line tutorials or help screens. Freshmen and sophomores prefer a self-guided on-line tutorial or help screen to a classroom presentation. Juniors prefer both equally. Seniors prefer classroom presentations to self-guided on-line tutorials or help screens by. Regardless of undergraduate standing (see Table 2), all students top three considerations when selecting articles from a library database were full-text availability, relevancy, and accuracy. The second tier of factors changes based upon academic standing. Freshman and sophomores consider references, unbiased presentation, format and length as critical. Juniors feel the same about their second tier, but replace length with author expertise. Seniors follow the preferences of juniors with one adjustment. Format is replaced with consideration for the date of publication. The survey did not differentiate between current or

historical publication dates. In both tables, junior and senior habits and library preferences changed.

### **Observations & Conclusions**

The following are possible alternatives for library instruction based on the current state of libraries, characteristics of Generation X & Y, and survey results.

- Replace mandatory freshman library instruction sessions with on-line tutorials and handouts. This helps in the retention of librarians by allowing them to spend more time focusing on more challenging library issues. Reducing the total number of instruction sessions also frees resources such as computer labs and personnel.
- Reconfigure service points and staff schedules to provide more one-on-one assistance from library personnel. The survey shows that all undergraduates give first preference to one-on-one assistance at a reference desk. The data also indicates that seniors want email contact with library personnel. Points of service will emphasize the traditional reference desk setting, as well as assistance through email communication. Staff schedules will be adjusted at these service points to meet patron needs.
- Encourage the scheduling of reference appointments. This keeps with the characteristics of Generation Y who demand more two-way conversations and feedback. It also helps replace mandatory freshman library instruction.
- Move mandatory information literacy programs to upper level classes that students take in their junior or senior year. The library sessions can be tailored to the specific needs of the different curricula and this will make instruction more relevant when taught in the context of a student's major. According to the survey results juniors and seniors place a higher preference on classroom presentations.

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## **Supervising Student Assistants: Planning for Success**

Alberta Davis Comer, Rebecca Stinnett, and Nancy Watkins

Alberta Davis Comer is Lending Services Librarian at Cunningham Memorial Library at Indiana State University. She is a writer for CogNotes, the American Library Association's publication of conference proceedings. One of her primary interests is management of staff and students. She has managed library personnel for fifteen years in academic, public, and military settings and still finds it a rewarding challenge.

Rebecca Stinnett, Library Associate IV, knows both sides of the student employment issue. A long time employee of Cunningham Memorial Library at Indiana State University, she has worked as a student employee for four years and has directly supervised students for the past six years. She now serves as Circulation Supervisor. Holding an undergraduate degree in Development and Family Life, she is pursuing her MLS from Indiana University.

Nancy Watkins, Library Associate IV, has been the supervisor of Interlibrary Loan for over five years. Prior to that, she was the office manager for Instruction and Orientation, also at Cunningham Memorial Library at Indiana State University. She has degrees in Music Education and Computer & Electronic Technology and has both classroom and individualized teaching experience with all ages from elementary school to adult learners.

### **Abstract**

Academic libraries depend upon student employees to help with the most essential functions of library operations. Student employees serve as a vital asset, from opening and closing the library to checking out library material to shelving the returned material. However, student workers may feel they are the least paid, least understood, and least appreciated of all library employees. Poor performance and high turnover rates may be the result. Lending Services at Cunningham Memorial Library at Indiana State University decided to make student employment a key focus by implementing new strategies to help us improve supervising skills, improve hiring decisions, encourage diversity, improve orientation and training procedures, insure students feel part of the Lending Services team, use performance evaluations more effectively, and institute practices that sustain ISU's institutional goals. We also plan to assess our new practices.

### **Introduction**

Academic libraries depend upon student employees to help with the most essential functions of library operations. Student employees serve as a vital asset, from opening and closing the library to checking out library material to shelving the returned material. However, student workers may feel they are the least paid, least understood, and least appreciated of all library employees. Poor performance and high turnover rates may be the result. We will examine how one unit at Indiana State University's (ISU) Cunningham Memorial Library is making student employment a key focus.

## **Student Employment History**

As early as 1853, the Librarian's Conference reported that some universities had student assistants (Baldwin, Wilkinson, and Barkley 4). By 1932 having student assistants in the library was so accepted that Downey, writing an article on the subject for the Library Journal, asserted, "We do presuppose student assistants in the college library, and will not discuss the advisability of having them, but will try to show the procedure in regard to what they do to be of service in the library" (417).

Koopman, a librarian at Brown University Library in 1893, declared that hiring student assistants "endeavors to kill three birds with one stone," that is, it allows the college to help students with tuition needs, it allows students to earn money, and it provides workers to the library (87). In the first half of the twentieth century, student employment was viewed as a way to entice good student workers into the profession (Boone, Yee, and Bullard 2).

Although perhaps less is written today about enticing student assistants into the library profession, other perspectives have remained constant. For example, in her 1932 article, Downey noted that many librarians could not conceive of working without student assistants (417). She also noted that many librarians believed that library work could help develop a student into a well-rounded adult (417). From both personal experiences and from reviewing recent literature, it is apparent that the two ideas are still widely shared by many librarians.

### **Cunningham Memorial Library and its Lending Services Team**

ISU's Cunningham Memorial Library provides support to a campus of more than 11,000 students and approximately 500 faculty. Twenty-one librarians and thirty-six support staff manage the Library's collection of over two million items. In the last fiscal year, between eighty and ninety student assistants were employed during the peak times of the fall and spring semesters.

Currently, ISU's Human Resources Department has well-defined processes for how jobs should be posted and what students must do to be officially cleared for employment. However, prior to mid-July 2002, hiring practices in Cunningham Memorial Library were not as organized. Departments were free to use applications of their own design. Additional applications came from periodic campus job fairs and were filed in the Library Administrative Office for an indefinite length of time. Departments could interview and hire without examining the total pool of applications. Notifying unsuccessful applicants when the job was closed was not a standard procedure.

The outgrowth of this was the decision by the Library's Administrative Office to produce a detailed Student Employment Handbook that would cover the essential elements of hiring, payroll management, and budget allocation and provide standard forms to be used by the student coordinators in every department. After some initial adjustment, the goal of bringing order to the process was achieved. When hiring decisions are made, the Administration Office notifies all students of the decision. This process insures that all applications are viewed and that all students know within a reasonable time period if they are hired or not.



Building on what the Administrative Office had accomplished, the Lending Services team decided to make student employment a priority. Below we discuss the actions that the unit has taken to hire, train, and develop the kind of student assistant who will be an effective member of the Lending team and the measures put in place to ensure that working relationships are mutually beneficial to both the library and the student employee.

### **Ways to Make Student Employment More Beneficial**

In Lending Services we depend upon our student employees to perform a number of tasks. This includes checking material in and out, shelving returned material and material used in-house, shelf reading, performing stack shifts, pulling and photocopying material for Interlibrary Loan (ILL), faxing and Arieling ILL material, and helping with numerous projects. Recognizing the importance of our student workers, we held team meetings and one-on-one discussions between staff and the Lending Services librarian, read the literature, discussed issues with student workers, and came up with some ideas that we began to implement. These ideas centered around improving supervising skills, improving hiring decisions, encouraging diversity, improving orientation and training procedures, insuring students feel part of the Lending Services team, using performance evaluations more effectively, instituting practices that help achieve critical thinking, and assessing our new practices.

### **Improving Supervising Skills**

Not everyone is suited to be a student supervisor. Baldwin outlines the qualities needed by effective student employee supervisors, including:

- ◆ Energy and good health.
- ◆ Leadership potential.
- ◆ Ability to get along with people.
- ◆ Job know-how and technical competence.
- ◆ Initiative.
- ◆ Dedication and dependability.
- ◆ Positive attitude toward management. (17-18)

When new student supervisors are hired, we plan to use Baldwin's outline to help us find the appropriate candidate.

However, we also believe that good supervisory skills can be taught. We believe Ziolkowski is correct when she emphasizes the importance of training student supervisors (56) and we asked Roy Boissey, ISU's Assistant Director of Student Employment, to teach two workshops on how to supervise students. From these workshops we learned the importance of helping students feel part of the team, as well as the importance of orientation. His suggestions are incorporated into the following sections on these topics.

## **Improving Hiring Decisions**

Choosing the right student employee is an important decision. To ensure finding the best candidate for each open position, Lending Services altered interviewing procedures. Using a set of prepared questions, interviewing perspective student employees is done as a team effort, with at least two staff members participating. Perspective students are given a standardized battery of tests to analyze their level of understanding of library operations. In the future, we plan to acquire software that will test students on their knowledge of the LC classification system.

## **Encouraging Diversity**

One of our immediate goals was to hire more minority students. Ziolkowski asserts that the library should, "Present diversity as a valuable and important part of your library" (55). Through the Library's new hiring procedures this has been easier to accomplish than in the past because student coordinators now review all applications. In this past year ILL has increased its number of African American students by 200 percent and its Hispanic American students by 100 percent.

## **Orientation and Training Procedures**

Kathman and Kathman, who have co-authored a number of articles about motivating student employees, emphasize the importance of training, especially with orientation and early preparation of new student employees. At orientation, students are provided with a copy of the Library's general policies and a manual that outlines unit expectations. Using Boissey's recommendations, we use orientation as a way to help students realize their responsibilities, including being at work on time, doing work while there, and giving notice of intent to terminate. Orientation is followed by individual instruction, both from staff supervisors and student peers.

Following Burrows suggestion to use a variety of training techniques (80), Lending Services employs paper, computer, verbal, and hands-on training in both individual and group settings. Further, we use a checklist to make sure that all aspects of training are covered and that training is consistent. One of our goals is to achieve what Kathman and Kathman talk about when they say that if training is done well, "The student should have some perception of how their duties in the library help to achieve the organizational goals of maximum and efficient service" (121). Our major objective is to have a well-trained student who understands and can practice the Library's "patron first" initiative and who finds his or her job challenging but rewarding.

## **Helping Student Employees Feel Part of the Team**

The Library believes in collaboration and teamwork, both within and outside of its formal structure. We want student workers to know their importance to the team from the very beginning. To help with this, we plan to ask the Library Dean and the Lending Services manager to write letters of welcome to our new student employees. Burrows reported that such letters from university and library administrators are a way to "inform students that they are part of something larger than themselves or their individual unit; that they share common goals and responsibilities with others in the library; that they are active participants in the life of the university" (81). We follow Boissey's suggestions to make students part of the process by calling

them by name, acknowledging when they do well, saying “please” and “thank you” to students, and showing them respect. To further help student employees feel acknowledged, we plan to have regularly scheduled meetings with them to discuss their ideas.

Clark points out, “Student workers value recognition and rewards as much as other library staff and donors” (88). We also believe that recognition and rewards are important. Student employees who excel at their jobs have the opportunity to be promoted to intermediate or advanced student worker status. Not only does this mean higher pay, but it also means that students at this level are entrusted to take on advanced work such as opening the library or placing ILL requests. We also recognize the importance of all of the student employees in Lending Service with a spring luncheon where we plan to acknowledge students who have worked at the library for a long period of time, as well as students who have completed particular projects or who have been promoted to advanced student status.

### **Evaluating Performance**

Students should know how they are doing before a formal evaluation is conducted. With this in mind, we plan to informally evaluate student employee performance throughout the year. If a student employee is not performing well, we try to discover if this is because the employee is not motivated to do the work or if a problem exists with the employee’s ability to do the work. For the formal semester evaluation, we follow Baldwin’s suggestion to use a standardized form that evaluates on two levels, motivation and ability (145).

### **Critical Thinking**

Critical thinking is part of most goals for higher education. We want to help our student workers refine their critical thinking skills and we believe that working in a library environment can help students with this objective. Boone, Yee, and Bullard state that student employees can follow a 4-step process in critical thinking skills. These steps include: learning the fine art of asking questions, thinking of alternative ways to help the patron, looking at the advantages and disadvantages of each alternative way, and reaching a solution (68). By providing sound training and then encouraging students to progress toward more challenging work, we believe that this goal is achievable.

### **Assessing Our Practices**

In addition to ongoing informal feedback, we plan to assess the value of changes in Lending Services practices through a pre-employment form that asks students about their job expectations and a post-employment form that asks if these expectations have been met. We also plan to meet with student employees, both individually and as a group, to discuss how they view the new practices and to ascertain what suggestions they may have for the future.

## Conclusion

Lending Services is committed to making student employment a key focus because we depend upon students to perform essential functions within our unit. We want to render the best possible service in all of the unit's areas and to do so we believe that working relationships must be mutually beneficial to both the Library and the student employee. We are implementing new strategies to help improve supervising skills, hiring decisions, and orientation and training procedures. We are also developing ways to encourage diversity, insure that students feel part of the Lending Services team, use performance evaluations more effectively, and institute practices that sustain ISU's institutional goals.

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## **Our Webmaster, Ourselves: Using the Team Concept to Develop and Maintain a Library Website**

Felicity Dykas and Carrie Donovan

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Carrie Donovan is a Reference Librarian at the University of Missouri-Kansas City's Miller Nichols Library. She graduated from Indiana University in 1999 with an M.L.S. Among other duties, she is coordinator of library instruction and co-chair of the UMKC Libraries' Web Team. Carrie is interested in web design and usability, especially as they relate to online teaching and learning.

### **Abstract**

In the rapidly changing environment of higher education, forward-thinking libraries use their web sites to provide access to resources, services, and collections. The web has become an important means of reaching users and will become even more so as we move into a future that is increasingly powered by information, online access, and autonomous library users.

In its goal to have a website pertinent and relevant to users, the University of Missouri-Kansas City (UMKC) Libraries found that the gargantuan task of developing and maintaining the Libraries' website could not be relegated to one person. The Web Team initially was formed in 2000 to redesign the web site. Following the launch of the redesigned website in January 2002 and the determination that using a team contributed to the success of the new site, the team format was made permanent. The current Web Team is now focusing its work on enriching content, creating new pages, and implementing additional usability studies.

At the UMKC Libraries, the team approach to Web design and maintenance allows the workload to be shared, broadens the sense of ownership, and improves the end product by bringing together a variety of skills and knowledge. Public services staff members contribute their knowledge of user needs and information search strategies. Technical services staff members bring knowledge of organization and provide information about subscriptions to online resources. Inclusion of a staff member from the technology office ensures that the Website is constructed within the constraints of available technology. Each team member acts as a liaison to a unit in the Libraries, oversees the work on one or more sections of the Website, and performs hands-on work using Dreamweaver and HTML coding. Select team members have responsibility for staying current in the areas of universal access issues, Web publishing standards, and local standards.

The team concept is not appropriate for every organization. There are many factors required to make the team approach a success, such as support of the administration, training, good leaders, and the ability of individuals to work as part of a group. When authorship for one product is

shared among many, decision-making becomes more complicated. Use of a team of individuals with different opinions and personalities can lead to a well-designed Website that meets the needs of a diverse user group. The same combination can lead to stalemates that may hinder the process of creation and maintenance. Team members must approach the process with an understanding of the difficult situations that may arise and the willingness to compromise for the good of the product.

Under team management, the UMKC Libraries Website is easier to navigate, provides a broader array of information, and, most importantly, has shown increased usage.

## **Designing and Developing an Online Information Literacy Course**

Dr. John Eye

Dr. John Eye is web librarian and assistant professor of instructional media at Southern Utah University. He teaches information literacy, an online general education requirement for all students, maintains the library web site, works the reference desk, and is the subject specialist in education. He chairs the library web committee and sits on the LM1010 committee, which is largely responsible for the design and development of the information literacy course. John holds a doctor of education and specialist degree from The University of South Dakota and a master's and bachelor's degree from St. Cloud State University.

### **Abstract**

Many American colleges and universities offer information literacy instruction, yet only a few deliver it online. Southern Utah University has offered LM1010, a basic online information literacy course, for 4 years. It has evolved into a required, general education course that serves hundreds of students per semester. With these numbers, a solid baseline of statistics has been gathered to provide a good look at what has worked and what continues to be a challenge.

A recent focus has been efforts that motivate and provide incentives for students to avoid procrastination. Since the course is self-paced, many students put-off the assignments until the last minute. In addition, course requirements have been revised to better reflect the real-world skills and concepts students need to develop. With the use of WebCT, a campus-wide course management system, quizzes and exams can be efficiently managed, freeing up time for more important efforts.

There are certainly both advantages and disadvantages to providing information literacy instruction using online methods. By examining past experiences and providing an open forum for discussion on this topic, courses can be designed to minimize the challenges and maximize what is successful.

### **Introduction**

Information Literacy (LM 1010) is an online general education course required for all students at Southern Utah University (SUU). It focuses on basic information literacy skills such as locating, synthesizing, and evaluating information -- all necessary for the development of a life-long learner.

Although many libraries have provided "just-in-time" library skills sessions primarily to classes involved in library research projects, far fewer have offered formal courses that address comprehensive information literacy skills. According to a 1995 LOEX survey, 30% of libraries offered credit bearing library instruction courses (Shirato and Badics 223-37). At SUU, LM 1010 began as IM 101, a live elective course with enrollment of fifteen per quarter and has grown to serve over seven hundred students per semester as a general education requirement that is available entirely online.

This article will address the general sequence of events that has led to university endorsement of LM 1010 as a general education requirement along with the design and development that has taken place to handle such increased demands. Successes of the past, along with current challenges that LM 1010 faculty currently face, will be described qualitatively as well as quantitatively using statistics that have been collected over the last several semesters.

### **Background of SUU**

SUU is a regional, public university serving 5881 students, 5680 undergraduates and 201 graduate students. Located in the southwest corner of the state, SUU provides instruction to students primarily from Utah, although forty-five states and twenty-eight foreign countries are also represented. There are 223 regular faculty, which figures into a twenty-one to one student to faculty ratio. SUU has the second largest teacher preparation program in the state among public institutions.

### **LM 1010 Today**

Enrollment in LM 1010 has grown to over seven hundred students per semester and is delivered completely online using a web-based course management system, WebCT. Course content is divided into eight chapters: Understanding Library Research, Get to Know the Library, Documenting Information Sources, Searching Online Databases, Finding Books, Finding Background Information, Finding Articles, and Finding Information on the Web. Short multiple-choice quizzes, developed for each chapter, are designed to check for understanding and provide immediate feedback. Six short assignments take students through the research process including: identifying a topic, forming a question, developing a search strategy, locating information, evaluating information, and creating a bibliography in MLA format. The final exam is administered online, although the students must contact a faculty or staff member at the reference or circulation desk to begin the test.

Students also have the option to test-out of the course. By passing an online test-out exam that includes a practical component, requiring them to successfully complete searches in several different online databases and the library catalog, students can demonstrate their information literacy level and accept the test-out score as their grade for the course. As a one-credit course, LM 1010 serves as an introduction to information literacy, hopefully opening the door to further study.

### **How LM 1010 Evolved**

LM 1010 was preceded by IM 101, an elective that was taught face to face. Students pursuing their school library media licensure, as well as those planning to work in the library, were required to take it. As the World Wide Web became more pervasive in the middle 1990s, IM 101 turned to LM 1010 and was converted to a hybrid online course using the web to deliver the content, and quizzes were developed using online forms. By the end of the 1990s, WebCT was used to administer quizzes. During the summer of 2003, it was used to deliver the entire course; a single outside web page functioned as an entry point to the class from the SUU library homepage.



The adoption of LM 1010 in 2001 as a university general education requirement occurred as the general education curriculum was undergoing significant reorganization. It was accepted into general education narrowly by one vote, after having been previously rejected. In addition to the information literacy skills that are necessary for students, such as locating, synthesizing, and evaluating information, the fact that LM 1010 provides them experience with online learning was a convincing argument.

### Successes

With the constant revision of LM 1010 and the collection of data from the past several semesters, certain indicators have pointed to positive influences regarding student achievement in information literacy at SUU. Pre-test and post-test questions indicate measurable progress in a number of areas such as discerning between popular and scholarly publications, narrowing a search using Boolean operators, understanding the organizational principles associated with the call number of a book, and citing sources. Figure one represents pre-test and post-test results from spring semester of 2002 based on a question that measures their ability to identify characteristics of a popular and scholarly publication. On the average, post-test results improved 20.9%.

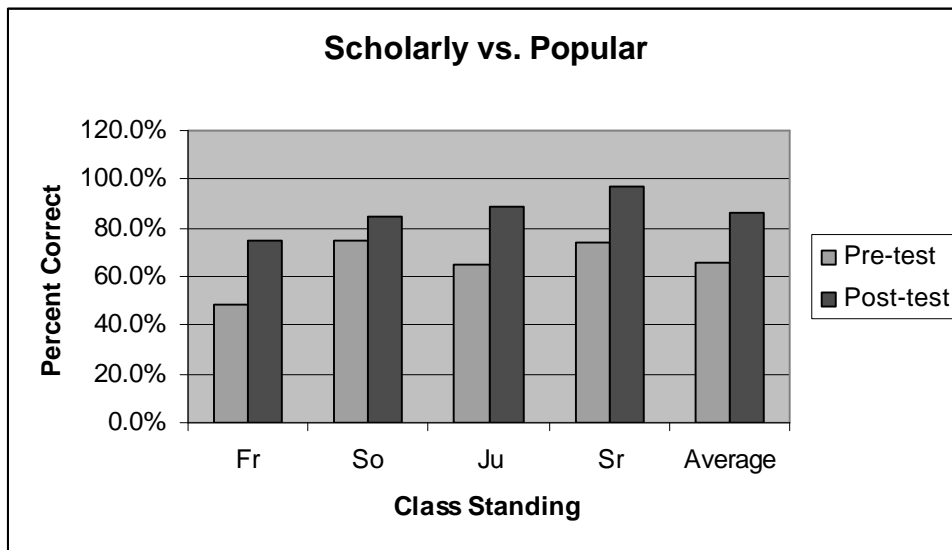


Fig. 1. Pre-test and post-test questions comparison for scholarly vs. popular publications in spring of 2002; n=481.

Significant improvement was also shown in knowledge of Boolean searching. Fig. 2 presents the percent correct for the pre-test and post-test question that addressed Boolean searching. There was a 34.71% average gain on the post-test.

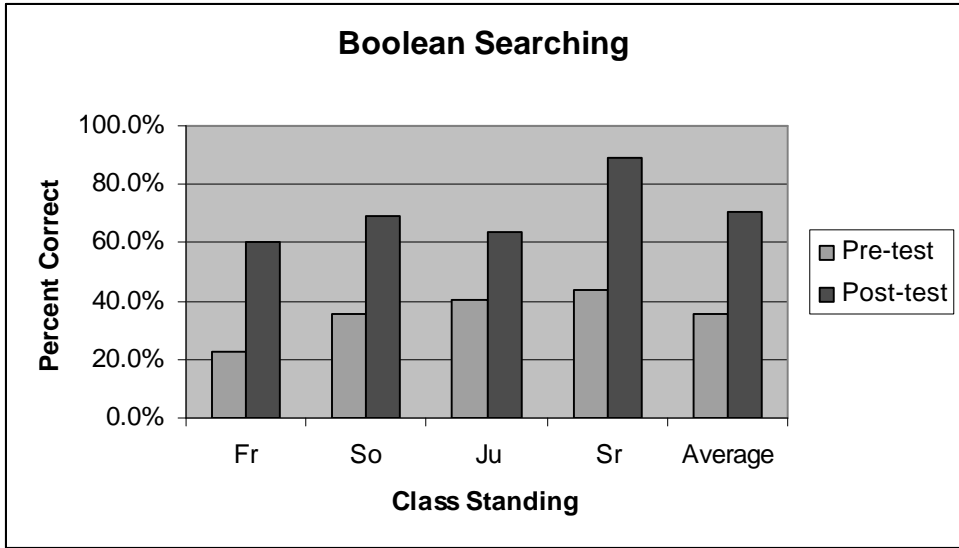


Fig. 2. Pre-test and post-test questions comparison for Boolean searching knowledge in spring of 2002; n=481.

The understanding of a call number was also measured. Fig. 3 reflects the percent correct for this question. There was a 20.8% average gain from pre-test to post-test.

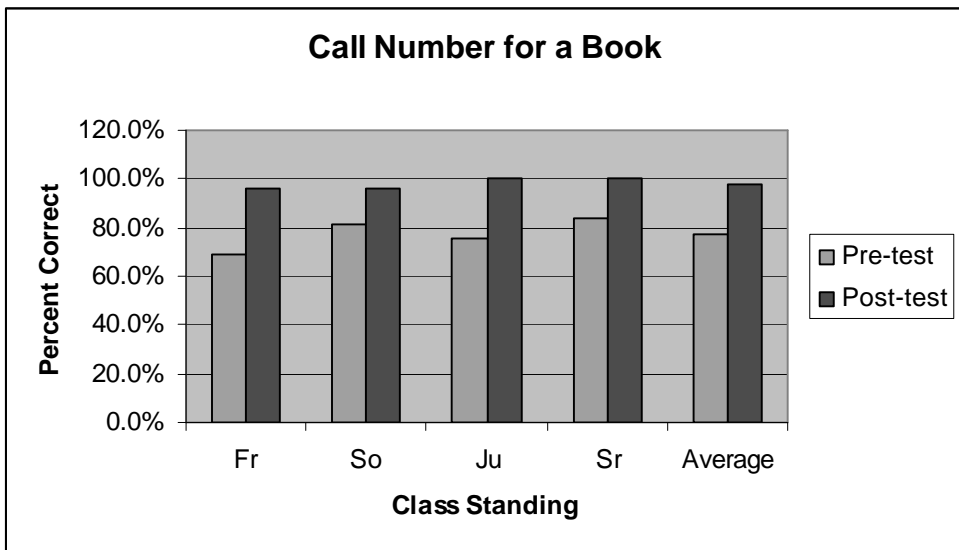


Fig. 3 Pre-test and post-test questions comparison for knowledge of a book call number in spring of 2002; n=481.

The level of knowledge in citing sources using MLA was examined. This question challenged the student to identify a correct citation. There was an 11.3% improvement overall.

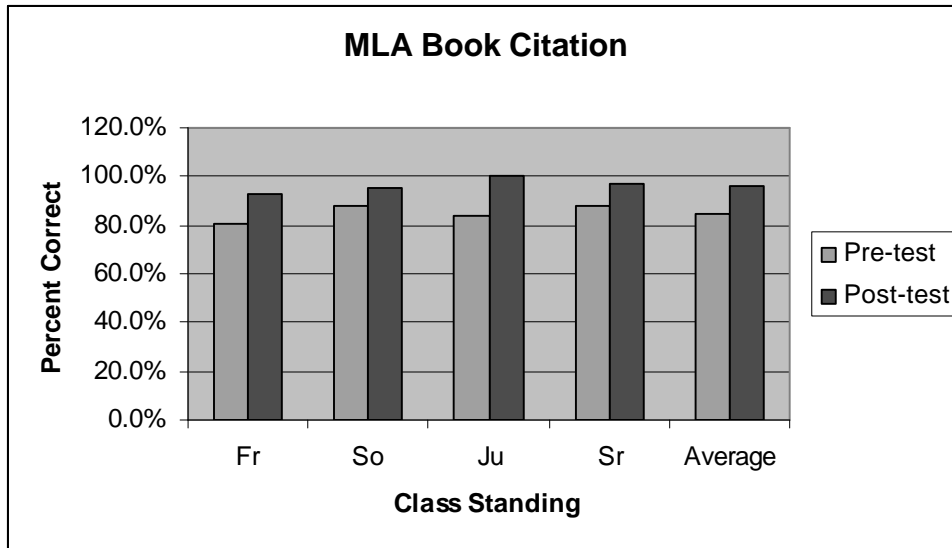


Fig. 4 Pre-test and post-test questions comparison for knowledge of a book citation using MLA in spring of 2002; n=481.

In all, this evidence suggests students are indeed learning basic information literacy concepts and finishing the course with a better understanding of how to perform basic information literacy procedures.

Another element of success in the course rests with its systematic design that makes the experience very flexible. Students are not faced with schedule conflicts involving LM 1010 since it only meets on the first day of class. In addition, individual assistance is available throughout the day at the reference desk because each librarian teaches several sections of LM 1010. Immediate feedback is provided with each chapter quiz and the assignments provide a balance of interaction with the instructor as part of the process in determining a topic sentence, formulating a search strategy, and correctly formatting citations.

## Challenges

### Failure Rates

The failure rate for LM1010 has been a continued source of concern. As shown in Table 1, up to 22% of students taking LM 1010 did not pass the course. Although online courses have been known to be associated with lower retention rates than live classes (Carr), LM 1010 faculty are working hard to identify and address specific barriers that may be associated with this problem. Interventions such as telephone calls and letters to students reminding them of their course obligations have had no noticeable effect. However, single session workshops that focus on the bibliography assignment or how to study for the test-out exam have been relatively popular.

The flexibility an online course provides also introduces an atmosphere that contributes to increased procrastination. Data gathered from LM 1010 seems to indicate procrastination as a leading factor in the failure rate. Failure rates have varied from approximately 12% in 2001 to 22% in 2003. Table 1 shows the breakdown.

Table 1: Failure Rate for 2000-2003

Year	Failure Rate
Fall 2000	12%
Spring 2001	14%
Fall 2001	18%
Spring 2002	18%
Fall 2002	17%
Spring 2003	22%

Poor scores on assignments, quizzes, and exams accounted for only a small portion of the failures. Primarily, students were unsuccessful as a result of quizzes and assignments not completed. So starting with Fall Semester 2003, deadlines for the assignments were redesigned to discourage students from putting off the work until the last minute.

### **Plagiarism**

Before 2003, plagiarism accounted for eight to ten failures per semester. Bibliographies were inspected individually by faculty and compared to previously submitted work using an Access database. In spring of 2003, it was decided to use Turnitin.com as a detection method for plagiarism. Students were informed that their work would be analyzed using this service and cheating seemed to have been reduced as reflected by only two occurrences for spring 2003 and none for summer 2003.

### **Student-Instructor Communication**

In an online learning environment, it can be difficult to maintain communication between the student and instructor. Since LM 1010 only meets the first day of class, communication must be sustained either electronically or independently with the student meeting individually with the instructor when necessary. Electronic mail has been the primary mode used in LM 1010 for instructors to answer questions and provide reminders of upcoming deadlines. However, students do not always have a reliable e-mail account. Hotmail and Yahoo! accounts occasionally become full and the communications link is severed. For this reason, students are now required to use the electronic mail component of WebCT to contact their instructor.

## Public Relations

By nature, general education requirements are not always considered by students in the most positive light. Often, students feel that general education courses are irrelevant and a waste of time (Weeks). The initial class meeting is a time when instructors emphasize why LM1010 is so important. A case is made for the need to critically evaluate sources, especially from the World Wide Web, in an effort to determine reliability. For example, it is unlikely a person would walk into a car dealership and rely solely on information acquired from the salesperson. Vehicle particulars and price should be verified using other, less subjective sources. Such is the case with most any information need. Learning to efficiently and effectively locate, evaluate, and apply information is the major objective in LM 1010.

## Course Evaluation

Student comments vary widely in LM 1010. Positive remarks identify the course as a useful tool for future classes and the ability to more effectively use library resources. Negative comments often reflect students' lack of understanding for the need of information literacy skills or frustration involving the online learning environment. In short, it seems students are either very satisfied or very unsatisfied with the course as a whole.

## Summary

LM 1010 is an online, web-based course used to teach information literacy skills as a general education requirement at SUU. Pre- and post-tests suggest the course is providing measurable improvement in several areas: discerning between popular and scholarly publications, formulating a search using Boolean operators, understanding the organizational principles associated with the call number of a book, and citing sources. Using WebCT, it is delivered completely online and provides students with greater flexibility with their schedules while offering online and on-campus support for those with questions and special needs.

This increased flexibility brings with it certain challenges. A significant number of students fail the class because they do not complete assignments or quizzes. Evidence gained from communication with students suggests that procrastination is a major reason. Communication problems also exist in the online learning environment as students often fail to check their e-mail or their accounts become disabled. It continues to be a challenge to motivate and convince students of the importance that information literacy skills have on continued life-long learning.

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## Rethinking the Library for Collaborative Learning

Ralph Gabbard, David Kaunelis, and Judy Tribble

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David Kaunelis is the Digital/Web Resources Librarian and Team Leader of the Web Management Team at Indiana State University. He is also a member of the Reference Team and has worked on database customization and enhancing the library's email and chat reference services. Previously, he was the Coordinator of Library Access Services at Lyndon State College in Lyndonville, Vermont, where he served as head of reference, library instruction, circulation and interlibrary loan. He received his MLIS from Dalhousie University.

Judy Tribble is the Reference Team Leader and Distance Learning Librarian at Indiana State University. She has served previously as interlibrary loan librarian and Head of Lending Services at ISU. She has given presentations on wireless technology in libraries and methods for evaluating ebooks at several conferences. Judy received her MLS from Indiana University, Bloomington.

### **Abstract**

As greater emphasis is placed on collaborative learning, libraries must prepare to support this educational strategy. Indiana State University (ISU) Library has developed a plan to support student collaborative learning. The plan, presently being implemented, focuses on five areas: (1) Changing the utilization of library space. The first floor paper reference collection is being downsized to provide more room for group study. (2) Changing furniture for workstations. No longer are private, single-user workstations the only configuration available. Two/three, four/five, and six/eight workstations have been developed and future plans call for collaborative learning rooms. (3) Developing a hardware configuration for the collaborative workstations. (4) Developing a software configuration with input from teaching faculty for the collaborative workstations. Three software packages have been installed on the workstations to promote collaborative group work. (5) Developing training programs for users and library staff. Additional skills are needed for reference staff—librarians, paraprofessionals, and student assistants—to support collaborative learning. Staff members will be promoting the use of the physical and virtual collaborative learning environments through meetings with academic departments and workshops targeting faculty and students in various disciplines.

### **Introduction**

Collaborative learning is a hot topic in education circles these days. One survey taken at the College of Business at San Jose State University (SJSU) revealed that 72% of the faculty “currently assign students to project teams in at least one of their classes” (Bolton 233). It’s not

just business schools that are requiring group work. A brief survey of the literature shows that nursing, physics, education, statistics and biotechnology professors, among others, are involving their students in the collaborative learning process (Porter and Mansour; Cox and Junkin; Winograd; Zhang; Thomas).

The wealth of literature on collaborative learning explores its numerous challenges and opportunities. In the SJSU survey mentioned above, Bolton notes that “81% of faculty gave...modest, limited, or no support to students assigned to their teams” (233). Bolton goes on to discuss ways that faculty can provide support that will improve student satisfaction and learning in team projects. Much of the discussion in this and other articles, however, focuses on collaborative learning within the classroom itself (Vik; Siciliano; Ettington and Camp). Outside the classroom, students do require further assistance, namely a physical space that supports effective group work. That physical space can and should be made available in the library.

How can libraries provide support that makes effective collaborative learning possible? Jeff Morris, leading a roundtable discussion of two librarians and two architects, addresses this question. Morris admits, “it’s not easy to facilitate collaboration in environments that historically encourage the hush, not the exuberance of information sharing” (26-27). In the roundtable, architect Mark Maves emphasizes the need for the libraries to play a key role in research and learning, “otherwise, administrators may look at it simply as a place to store books” (27). Maves goes on to state that libraries must embrace change and facilitate collaborative learning. “Work areas have had to increase in size simply because of all the different media being used: print, laptop, screen. What hasn’t really happened yet is using diverse media in a collaborative way, shared by four to six people” (28). The following case study presents one way to provide collaborative learning environments within a library setting.

### **Project Plan**

A team was charged with developing a prototype collaborative learning station consisting of furniture, hardware and software. Before installation of these prototypes the reference collection was to be reduced by two-thirds. After the reference collection reduction, several configurations were to be selected and tested. After a brief testing period, one of the prototypes was to be selected for implementation. Final implementation will consist of 12 collaborative learning stations in place by the spring of 2004.

### **Initial Prototypes**

A review of different types of tables was undertaken by the team. The primary requirement in the early prototyping process was that each configuration be able to seat between three and six students. Initially two table types were selected for prototype review. The first table selected was from the Bretford Company. As illustrated in Figure 1, the table is kidney shaped and is 78 3/4” wide and 47 1/2” high. The table is not adjustable. Accompanying the table is a PC Pod, also from Bretford. The Pod sits on casters and the height adjusts from 27 1/8” to 35 3/8”. We ordered the CPU Holder, a hopper power and data center, and the homerun electrical solution. The cost for the table was \$1,759.00 and the pod cost \$1,354.00 for a total of \$3,113.00. ([A Higher Form of Function: Bretford](#))



Fig. 1. Kidney Shaped Table



Fig. 2. PC Pod

The second table selected for review was a trapezoid shaped model from Gaylord. As illustrated in Figure 3, the trapezoid is 48” by 24” and adjusts in height from 22” to 32”. In order to create a configuration that would seat four to six students we needed to place four of these tables together as illustrated in Figure 4. Each trapezoid table cost \$195.95. We purchased enough tables to configure two collaborative learning stations. The final cost for eight tables was \$1,567.60 ([Gaylord.com](http://Gaylord.com), [LibrarySupplies](http://LibrarySupplies.com), [Furniture](http://Furniture.com), [ArchivalSupplies](http://ArchivalSupplies.com)).



Fig. 3. Trapezoid Shaped Table

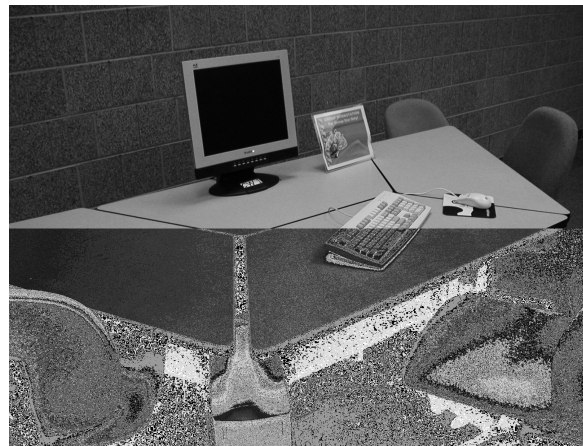


Fig. 4. Trapezoid Table Configuration

After selection of the two table configurations, the team decided to use existing PCs, incorporating flat screen monitors. The existing PCs were Gateway E3600, Pentium 4 1.8GHz with a 32MB video card, 250MB RAM, 20GB hard drive, a DVD drive, two USB ports in front and four USB ports in the rear of the each PC. In addition, each PC had a Cisco Aironet 350 series PCI wireless card (\$229.00 each) ([Cisco Systems, Inc.](http://CiscoSystems.com)).



The selection of flat screen monitors would increase the work area on each table configuration. The team chose ViewSonic 18" VG800 LCD Flat Screen Monitors as illustrated in Figure 5 for the prototype configurations. These monitors cost \$769.00 each and four of these monitors were purchased at the cost of \$3,076.00. Figure 6 illustrates the trapezoid table prototype. The team also bought four ViewSonic VS-WKBM wireless keyboards and mice at the cost of \$79.99 each. Table 1 presents the final cost for both prototype configurations ([ViewSonic - See the Difference](#)).



Fig. 5 ViewSonic Flat Screen Monitor

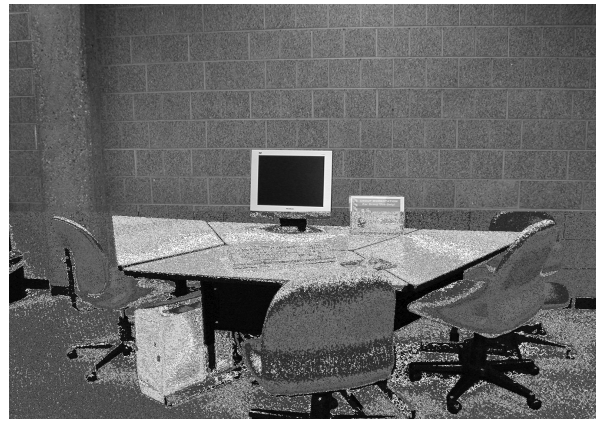


Fig. 6 Trapezoid Shaped Configuration

Table 1: Prototype Costs

Configuration	Table	Miscellaneous	Monitor	Total
One Kidney Shaped Table	\$1,759.00	\$1,354.00 (Pod) \$229.00 (wireless card) \$79.99 (wireless keyboard)	\$769.00	\$4190.99
Two Trapezoid Shaped Tables	\$1,567.60 (8 tables @\$195.95)	\$458.00 (2 wireless cards) \$159.98 (2 keyboards)	\$1,538.00 (2 monitors)	\$3,723.58
Totals	\$3,326.60	\$2,280.97	\$2,307.00	\$7,914.57

The software load for the prototypes consists of Windows XP Pro, the full Office XP suite, Adobe Acrobat, Adobe Photoshop Elements, Citation 8, EndNote, WS FTP, and SPSS. In addition, the software load also includes:

- ◆ MindManager, a visual tool for brainstorming and planning. It allows creation of mind map-diagrams showing hierarchical branches emanating from a core concept or idea. Mind maps can be used to diagram any project that can be represented using tree structures. MindManager can export maps to create a PowerPoint presentation or an html web page. Text can also be exported into Microsoft Word for a text-based outline view.
- ◆ DENIM, which helps web site designers in the early stages of design. It supports sketching input, allows design at different refinement levels, and unifies the levels through zooming. It allows for the creation of site maps and storyboards.

- ◆ Concept Map, which allows users to create concept maps. Concepts can be linked to each other for organizational purposes. Images, video, text and web pages can be imported from other sources and added to the map. Maps can be shared collaboratively and securely using user names and passwords (IHMC Concept Mapping).

### Results of User Tests

The team held two informal sessions with student users of the prototypes. From these discussions the team found that students had difficulty seeing the single monitor when seated at the edges of the tables and the placement of the PC on the floor made access difficult. It was also determined that the wireless keyboards and mice were not necessary. The original thinking was that the reference desk would check out the keyboards and mice in order to control the use of these stations to groups of three or more students. However, the distance between collaborative workstations was too close and the keyboards interfered with each other. In addition, the team reviewed the furniture configurations and determined that both configurations were rather expensive. Therefore, a new prototype was developed.

### Final Prototype

A second review of furniture with an additional cost requirement was undertaken. The Adjustable-Height Activity Table from K-LOG Inc. was selected as the new table component as illustrated in Figure 7. This table is 48" by 96" and adjusts in height from 21" to 30". The cost of this table is \$178.00 ([K-Log: Quality Furniture – Discount Prices](#)). A second ViewSonic 18" VG800 LCD Flat Screen Monitor has been added to the prototype. The last component added in response to the students' suggestions is the Gateway Profile 4LS All-in-one computer illustrated in Figure 8. This computer is a Pentium 2 2.0GHz processor, with a 256 MB hard drive, a DVD drive, six USB ports, and a 17" LCD flat panel display. In addition, a Cisco AIR-PCM 352 wireless adapter card was ordered for each PC (\$130.00 each). The Profile 4LS costs \$1,719.00 ([Gateway Computers](#)).



Fig. 7. Adjustable-Height Activity Table



Fig. 8. Gateway Profile 4LS All-in-one Computer

The cost of the final prototype was \$178.00 for the table, \$769.00 for the monitor, \$1,719.00 for the PC, and \$130.00 for the wireless card for a grand total of \$2,796.00. Figure 9 illustrates the All-in-one computer with the second monitor (however, the table is the trapezoid shaped configuration).



Fig. 9. All-in-one Computer with the Second Monitor Prototype

### **Future Enhancements**

Two new software programs are presently being evaluated for inclusion in the software load. The first is Microsoft Project 2002, which offers: dynamic task scheduling; Gantt charts, calendars, and task sheets; Project Guide, an interactive help tool; Microsoft Office XP interface; Microsoft Excel and Microsoft Outlook integration; Resource leveling; Resource availability graphs; Enterprise resource pool; Skill-based resource assignment and replacement; Collaborative tools; Web-based analysis and reporting tools; and Extensible platform (Microsoft Corporation). The second is Groove Workspace, which provides the tools for: working on files *together*; discussing work in *real-time*; sharing presentations *with anyone, wherever they are*; and creating project-specific virtual *shared spaces* for working with different groups of people. (Groove Networks – Groove Workspace) The team is actively seeking input from faculty on other collaborative software.

At the Library's recent open house, the team demonstrated the collaborative learning stations to faculty and students. And while the prototypes have been installed in the Library since spring of 2003, many students and faculty were unaware of their existence. The collaborative learning stations were well received. Presently, the team is working on a proposal for developing several collaborative/interactive-learning rooms.

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## **The Challenges of Vendor Added Content Linking and User Perceptions**

Sally Gibson

Sally Gibson is the Reference Librarian/Database Coordinator at Creighton University's Reinert/Alumni Memorial Library. She manages the database subscriptions, administrative modules, and the full-text journal title list via EBSCO A to Z. Sally is the library liaison to the English, Psychology, Philosophy, and Fine Arts departments.

### **Abstract**

For many libraries implementing linking services like SFX is not possible due to a limited budget and staff. At the same time more database vendors are utilizing open URLs and agreeing to link between databases. EBSCO, JSTOR, and CSA have different methods and agreements in place, which create seamless access to full-text content and electronic journals. Libraries can customize the database administration modules, or provide vendors with subscription information to take advantage of the various agreements. While these vendor agreements and services provide better access to the full-text content they also present new issues and challenges. Different types of customization require more database maintenance, and restricted access messages or the appropriate copy problem is not always eliminated. Library users need to have a basic understanding of the concept of linking in order to access the full-text content via library subscriptions and properly cite the article. Thus, library instruction sessions need to address how a library user arrives at the full-text article when searching different database interfaces. The Reinert/Alumni Memorial Library at Creighton University addresses the issues and challenges of content linking through a combination of vendor services, an A to Z title list, user education, and ingenuity.

## **Implementing ILLiad in an Academic Library**

Tess Gibson

Tess Gibson earned her B.A in Political Science and French from Baker University and her MLS from Emporia State University. She is currently working on an M.A. in History at the University of South Dakota where she has been Access Services Librarian for four years. Prior to accepting her current position in South Dakota, she was Interlibrary Loan Supervisor and an Information Specialist at the Johnson County (Kansas) Library for seven years. Tess has worked at the Johnson County Community College Library and the Collins Library at Baker University. Tess selected the ILLiad software and worked closely with other campus departments on the installation. She supervised the redesign of the interlibrary loan process and wrote training documentation for use by staff and student workers.

### **Abstract**

Librarians are constantly looking for ways to maximize customer satisfaction through service improvements that recognize current fiscal realities. In order to provide better service to our customers and to streamline the interlibrary loan process for both customers and staff members, the I.D. Weeks Library chose to implement ILLiad, OCLC's interlibrary loan management software. This presentation will discuss in depth the processes utilized to bring this project to completion. Areas to be addressed include the importance of good working relationships with other departments both within the library and on campus, the need to educate and train customers in the use and benefits of ILLiad, and the crucial need for interlibrary loan staff to be flexible and willing to change work procedures due to the constantly evolving software. Data that demonstrate improved turnaround times and customer satisfaction levels will be presented. Both the benefits and the challenges of ILLiad will be presented. A discussion type format will be used so that participants will be able to ask questions and freely engage in an interesting dialogue.

## **Library Use Today: Do Students Still Need Us?**

Jim Gravois

Jim Gravois is a reference librarian at Auburn University Libraries in Auburn, Alabama, where he has worked for twelve years. He received the MLIS from the University of South Carolina and the MA in History from the University of Texas. He is collection manager for the departments of Philosophy, Religion, and Foreign Languages. He likes to study Spanish literature in his spare time and travel in Latin America.

### **Abstract**

With the increase in electronic information sources and expanded access to home and office computers, do students need to come into the library building anymore? Do they need the expertise of librarians? An online survey, sent to graduate students in the southeastern United States, offers one answer to these questions. The population was drawn from Master's degree candidates in Spanish Language and Literature at the following universities: Alabama, Arkansas, Auburn, Florida, Florida Atlantic, Florida International, Florida State, Georgia, Kentucky, Louisiana State, Mississippi, UNC-Chapel Hill, UNC-Charlotte, Tennessee, Tulane, and Virginia.

Fifty-two students completed the survey, answering 23 questions. Based on the responses, here is a general snapshot of library use during the 2002-2003 academic year. Only 31% of these students visited their university library more than once per week. Some 54% rarely or never sought out reference assistance when in the library. While in the library, the most popular activities were: 1) finding specific books (98%); 2) reading articles in journals (79%); and 3) using computers (52%). Secondary activities were studying alone (44%), speaking to a reference librarian (37%), and studying with others (19%). Regarding other library services, the survey showed that 60% had used Interlibrary Loan, 31% had received reference assistance via email, while only 4% had used "live chat" for reference help. A quarter of the respondents had taken advantage of telephone reference.

These graduate students were pretty busy, with 52% taking three or more classes during the semester and 39% needing to write three or more papers per term. Two-thirds had attended a library instruction session specifically related to their major. Of these, only 23% found that session "very" helpful. While almost all of them (94%) said they used library databases for their research, only about half do that research in the library itself. Over half of the respondents were content to search the databases from home or office. The most popular database for these students was the MLA International Bibliography, used by 92%. Other databases regularly used were EBSCOhost's Academic Search Elite (33%), InfoTrac's Expanded Academic ASAP (27%), LexisNexis Academic Universe (18%), the Handbook of Latin American Studies (25%), Contemporary Authors (14%), and Twayne's Author Series (14%). About a third of the students claimed to consult these databases only once a month, while two-thirds used them at least weekly.

The results of this survey suggest some questions for librarians to ponder. Why do most students consider library instruction classes only “somewhat” helpful? What can librarians do to improve this important service? Can we improve our selection of databases for graduate students? What does it mean that over half of these hard-working graduate students rarely approach the reference desk? Is this a failing on the library’s part? Do librarians need to be more proactive in reaching out to students? Do the results of this survey suggest any lessons for dealing with students from other graduate departments? Many of these questions are worthy of further research.



## **Reference and Instruction Program Assessment: Sounds Great, But Where Do I Start?**

Jan L. Guise

Jan L. Guise was recently promoted to Assistant Director for Public Services at Mabee Library of Washburn University in Topeka, KS. She earned her Master of Library and Information Studies degree from the University of Alberta in Edmonton. Jan currently serves on the ACRL/Instruction Section Management of Instruction Services Committee. She attended ACRL's Harvard Leadership Institute for Academic Librarians in Cambridge, MA in August 2003, and recently presented a paper on "Benchmarking in Library Instruction" at the Workshop on Instruction in Library Use (WILU 2003) in Windsor, Ontario, Canada.

### **Abstract**

As part of Mabee Library's Strategic Plan for 2000-2003, Reference and Instruction were designated "strategic emphases." The Coordinator of Reference and Instruction was charged with conducting an analysis of the current programs, and developing recommendations for future direction and change.

A review of the literature revealed no "magic bullet" assessment tool to help the Coordinator analyze Reference and Instruction at the program level. The Library had recently completed the Association of Research Libraries Collection Analysis Project (CAP), a facilitated process designed to help libraries examine their collection development and management programs. The Coordinator of Reference and Instruction adapted the CAP methodology for Reference and Instruction at Mabee Library.

The analysis involves two parts: an examination of historical development of the programs in question, and an environmental scan to determine internal and external factors affecting the programs. Although it is time-consuming, this process has been invaluable in identifying areas to focus on and assess, as well as in planning for and justifying change. The process could be applied at any academic library. This presentation will outline the methodology, resources used to gather information, and recommendations identified for the programs.

### **Introduction and Background**

Washburn University is a medium-sized public metropolitan university (approximately 4,600 FTE students and 275 FTE faculty) offering undergraduate and selected master degrees through five schools and colleges. The main university library, Mabee Library, contains over 335,000 print volumes and receives over 2,300 periodical/serials titles. The Staff consists of ten professional and eleven support staff.

Mabee Library developed its first formal Strategic Plan in July 2000 (for the years 2000-2003). Throughout the Plan there was heavy emphasis on assessment of programs and services through such mechanisms as focus groups and participation in the Association of Research Libraries' (ARL's) LibQUAL+™ User Satisfaction Survey. In August 2001 a new position--Coordinator of

Reference and Instruction—was filled, charged with analyzing the existing Reference and Instruction programs at the Library and making recommendations for change.

During the 2001-2002 academic year, the Coordinator observed the programs. At that time, the Library offered in-person, telephone, and e-mail reference service. All librarians had reference duties (except the Dean of Libraries) and two paraprofessionals had been trained to staff the desk with a librarian during busy times of day. Telephone and e-mail reference service were offered at the reference desk, and the desk was staffed 81 hours per week including weekends. The instruction program consisted of approximately 180 one-shot classes per year and a one-credit Library Research Strategies class (offered as part of the University's General Education program). Four reference librarians (plus the new Coordinator) comprised the Instruction team (one of these had served as Instruction Coordinator since joining the Library in 1993). It was a seasoned staff; the Coordinator observed a good service ethic and professional competence among all of them. As a complement to this, results of the LibQUAL+™ Survey and subsequent focus groups indicated that users were reasonably happy with Library service.

Given this scenario, the Coordinator found it difficult to identify potential areas of change in Reference and Instruction. At the same time, she knew library technology was changing, library patrons had changing information needs, and there were new models and practices being tried at other institutions to address these changes. Were Mabee Library “tried and true” ways sufficient for these changing times? Of all the models and best practices that exist at other institutions, which one(s) would work best at Mabee Library? The Coordinator sought help to answer these questions, but an extensive review of the literature, attendance at relevant conferences, and conversations with library consultants revealed that no “magic bullet” analysis tool exists for academic library public services.<sup>1</sup>

Meanwhile (November 2001 to Spring 2003), in the area of collection development, the Library was working through ARL's Collection Analysis Project (CAP). This is a facilitated self-study methodology designed to help academic libraries examine their collection development and management programs (as described in Guise and Feinmark 2003). CAP involves reviewing the history of one's collection development program, identifying internal and external environmental factors affecting the collection development program, and making recommendations for change based on the analysis. The Coordinator of Reference and Instruction participated in CAP as a member of the Study Team, and as Chair of one of the Task Forces. CAP worked so well for Mabee Library's collection development program that in January 2003, with the blessing of the Dean of Libraries, the Coordinator decided to adapt the CAP process for Reference and Instruction.

## **Methodology**

The CAP process is divided into three major parts. The first part consists of developing the underlying collection development (CD) goals and objectives. These should be consistent with those of both the library and the parent institution. The Coordinator had already developed

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<sup>1</sup> Contact the author directly for a copy of the 23-page Annotated Bibliography compiled during this literature review.

departmental goals for Reference and Instruction as part of Strategic Planning and annual goal-setting activities in the Library.

The second part consists of the historical development of the particular library's collections (such as physical dimensions and strengths and weaknesses) and the research and analysis of both internal and external environmental factors (such as resource sharing and scholarly publishing) affecting CD. These two sections should include both narrative and statistical content. These first two components (CD goals and objectives and the environmental and historical analyses) are compiled into an "Interim Report" which is submitted to the head of the Library. The Interim Report provides the background for the development of the third part of CAP: in-depth analysis and recommendations for improvement of specific areas of the library's CD program.

The Coordinator examined the structure of the CAP Interim Report and adapted it to examine parallel aspects of Reference and Instruction. The new report would include a review of the history of the Reference and Instruction programs, an environmental analysis of internal and external factors affecting the programs, and some recommendations for change (see Figure 1).

In examining the history of the reference and instruction programs, the Coordinator gathered data from 1992 onward. That date was chosen because it was in that year the Mabee Library automated. She presumed that significant changes in reference and instruction service would have happened after this point, not before.

Figure 1 shows in detail the kind of information and data the Coordinator collected for each section of the report. Some of the groundwork for this data collection had been laid during the CAP process which saved the Coordinator from having to "reinvent the wheel": library statistics had already been gathered and organized for CAP, and individuals on campus in charge of various university statistics had already been identified. Knowing the reporting style preferred by the Dean of Libraries saved the Coordinator many report re-writes as well.

A Study Team, several Task Forces, and an ARL facilitator comprise the people involved in CAP. The ARL facilitator trains the Study Team and the Task Forces in the CAP process, and is available as a resource for the duration of the study. The library's collection development officer typically chairs the Study Team.

Knowing from the outset that she would be without the benefit of a facilitator in the adapted process, the Coordinator proposed that an outside consultant be hired, once the so-called "Interim Report" was completed, to help identify and implement recommendations for change. The Dean of Libraries agreed to this proposal, provided a suitable consultant could be found.

The Coordinator of Reference and Instruction and the Dean of Libraries immediately decided on more informal involvement from Library staff in the adapted structure. Over half the total Library staff (11 out of 21) had been involved in the CAP process, and all admitted to being "burned out" after the yearlong project. In addition, some of the necessary work was already done and the project promised to be less arduous than CAP had been: the Coordinator had already been reviewing the reference and instruction literature for a year searching for models

and best practices, many of the environmental factors identified in CAP could be applied to reference and instruction, and even the fact that it was now known how and where to collect Library and University data and statistics would save time. The Coordinator decided to undertake the project personally and involve Library staff on an as-needed basis throughout the process.

Outline	Explanation & Sources Consulted
<b>I. History of the Reference &amp; Instruction Programs</b>	
REFERENCE	<ul style="list-style-type: none"> <li>• Annual Reports</li> <li>• Staff Interviews</li> <li>• Minutes of old library faculty meetings</li> <li>• Involved staff (their perceptions of the history), faculty and students (LibQUAL+ focus groups)</li> </ul>
1. Staffing	
2. Physical Layout	
3. Services Offered	
4. Statistics and Evaluation	
INSTRUCTION	<ul style="list-style-type: none"> <li>• Files of past surveys/questionnaires/pre- and post-tests used by instruction librarians</li> </ul>
1. Staffing	
2. Physical Layout	
3. Services Offered	
4. Statistics and Evaluation	
IMPACT OF CONTINUATION OF CURRENT PATTERNS	<ul style="list-style-type: none"> <li>• What are some potential pitfalls of things staying the way they are now?</li> </ul>
<b>II. Environmental Analysis</b>	
ECONOMIC OUTLOOK	<ul style="list-style-type: none"> <li>• <i>Chronicle of Higher Education</i> has statistics on higher education (national and state-level)</li> <li>• Washburn University Budget</li> <li>• Library Annual Reports track costs and expenditures</li> </ul>
1. National	
2. State	
3. University	
4. Library	
TECHNOLOGY	<ul style="list-style-type: none"> <li>• Library Annual Reports document technology changes over the years</li> <li>• Copies of old grant proposals to University technology funds</li> </ul>
USER POPULATION	<ul style="list-style-type: none"> <li>• <i>Chronicle of Higher Education</i> has statistics/articles on incoming student demographics and test scores</li> <li>• University Institutional Research department has student demographics and test scores</li> <li>• Washburn University Academic Plan</li> <li>• Literature review</li> <li>• ACRL ILI Best Practices institutions</li> <li>• Attendance at conferences (VRD, WILU, LOEX etc.)</li> </ul>
OTHER INSTITUTIONS	
1. Models	
2. Best Practices	
3. Peer Institutions	
IMPACT OF ENVIRONMENTAL PRESSURES	<ul style="list-style-type: none"> <li>• Do we need to change to address these internal and external pressures?</li> </ul>

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### III. Recommendations (partial list)

- Change reference staffing to address the fact that only about half of questions asked are real “reference” questions.
  - The content and course weight of the one-credit Library Research Strategies course should be examined to ensure it adds value to the University
  - Use the Standardized Assessment of Information Literacy Skills (SAILS) instrument to assess student instruction needs.
  - Use the Wisconsin-Ohio Reference Evaluation Project (WOREP) instrument to assess user reference needs.
- 

Fig. 1. Structure of Adapted Interim Report

#### **Strengths of the Methodology**

Undertaking this process has given the Coordinator a much better understanding of the programs she oversees. She now feels she can lead the programs more effectively. Having an existing structure to work with makes data gathering and writing more efficient and systematic. It is important for the collected history and analysis of the programs to be gathered and accessible in one place for easy reference. Future Coordinators will not have to rely on librarians’ sketchy or biased memories to find out whether something has been tried before. Having such a report also helps one justify changes if they are well researched and rationally presented. The Coordinator can now deal with areas of change systematically and perhaps proactively, rather than just waiting until a problem presents itself and reacting to it. Figure 1 shows some of the recommendations that have come out of the process thus far, but a complete list of recommendations was not finalized at the time of this writing.

#### **Weaknesses of the Methodology**

Unfortunately, identifying and implementing changes to a program takes time. Preparing this report has taken the Coordinator nearly a year. Regardless of the methodology used, time will not stand still and work life goes on during the process. Despite the Coordinator’s best intentions of approaching this project systematically, many environmental changes occurred that forced a reaction before the report was ready:

- A reference staff member resigned from the library forcing a change in reference staffing.
- The State of Kansas launched a virtual chat reference project—*KANanswer*—in February 2003. The Coordinator had to decide quickly whether Mabee Library should participate.
- The 2000-2003 Library Strategic Plan matured, and the Library began a new Strategic Planning process in July 2003. The new direction and goals for the Library directly influence the Coordinator’s goals for reference and instruction.
- The Dean of Libraries changed the organizational structure of the Library. Reference and Instruction were subsumed into a larger “Public Services” department, and the Coordinator was promoted to Assistant Director for Public Services. She now oversees

Circulation, Reserves, and Interlibrary Loan in addition to Reference and Instruction. Her new duties necessarily take time away from reference and instruction.

Gathering the data necessary for this methodology is what takes the most time. Despite the fact that the Coordinator was familiar with the CAP process and some of the groundwork had been laid for the data collection, it was still frustrating at times. It may seem obvious, for example, that the quickest way to get information on the historical development of a Library program is to interview Library staff. At Mabee Library, 75% of reference and 80% of instruction staff have worked at the Library for 10 years or more. Despite their apparent historical knowledge, the Coordinator found that their memories of events were contradictory and even biased. Facts gathered from staff always had to be verified with print documents (e.g., Library annual reports) and/or other campus staff who may have a more objective memory of the event. One example of such an event at Mabee Library is the point in history when paraprofessionals (Library Assistants or LAs) first began staffing the reference desk. Library annual reports documented the year (1996) but not the reason for the change. An interview of librarians resulted in several years (all different and none of them 1996) and a variety of reasons for the change.

### **Conclusion**

This adaptation of the CAP methodology is still in its infancy, and has not been sanctioned by ARL. However, the experience has been extremely valuable for the Coordinator and the Library. While time consuming, the process could benefit academic libraries of any size. First, current, and future administrators will benefit from having all relevant data on specific programs collected and organized in one place for easy reference. Second, the methodology helps librarians identify and justify programmatic changes. Third, the process does not disrupt everyday workflow of the programs being analyzed.

Involving the objective viewpoint and expertise of an outside facilitator or consultant at some point in the methodology would definitely enhance the process. The methodology should be tested at other institutions to ensure its viability in different environments. Ultimately, this is just a first step in developing an accessible method of program assessment for academic library public services.

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Guise, Jan L., and David Feinmark. "ARL's Collection Analysis Project: Continuing Feasibility For A Medium-Sized Academic Library." *Library Management* 24 (2003): 332-336.

## **Information Needs in the Sciences: Implications for Library Collections and Services**

JoAnn Jacoby

JoAnn Jacoby is the Anthropology and Sociology Librarian at the University of Illinois at Urbana-Champaign. In her previous position at the Illinois Natural History Survey Library, she worked with ecologists, botanists, zoologists, and other scientists.

### **Abstract**

Understanding the information needs of scholars and students working in different disciplines can help librarians make sound decisions in an evolving information environment. Information needs and patterns of scholarly communication, both print and electronic, are examined in four science disciplines: physics, mathematics, chemistry, and biology. Drawing on data culled from the published literature, discipline-specific patterns of usage are analyzed and compared. Factors considered include: 1) the types of information scientists consult in the course of their teaching and research, 2) library usage, habits, and preferences, 3) scholarly communication patterns, 4) publication rates and the pace of new research discoveries, 5) citation “half-life” and 6) disciplinary cultures and communities of practice. Particular attention is given to how these findings can impact and inform library collections and services.

### **Introduction**

Conventional wisdom holds that the serial literature is the primary vehicle of scholarly communication in the sciences. When tough decisions have to be made, science librarians argue for sacrificing monographs to protect serials or to pay for the “Big Deal” online journal package. In some science disciplines, however, monographs are quite important. When I worked at the Illinois Natural History Survey Library (a departmental library at the University of Illinois at Urbana-Champaign focusing on botany, zoology, and ecology), I was surprised that nearly 40% of the materials budget went toward the monographs and monographic series. This was a science library! Scientists use serials! But I quickly learned that the books we bought were heavily used and that the monograph was very important within certain subfields of biology. I also discovered that some other assumptions I had about information use in the sciences did not always hold true, either.

To illustrate the diverse patterns of information use within the sciences, this paper examines the ways information, both print and electronic, is used in four different disciplines—physics, mathematics, chemistry, and biology. Particular attention is paid to how discipline-specific patterns of usage might impact and inform library collection and services. The types of literature consulted in the course of teaching and research, formal and informal communication patterns, the pace of research discoveries, publication trends, and disciplinary habits and cultures are all important factors to consider when building library collections and evaluating library service priorities.

This paper draws on previously published studies to look for overarching patterns. Though useful for outlining the big picture, this broadly comparative view obscures finer levels of detail. Local departments, for instance, have their own peculiarities, habits, and needs. Students have different information needs than faculty. For a discussion of the vastly different ways in which faculty and undergraduates approach the research process and how this impacts library instruction and reference services, see Leckie (1996).

### Comparison of Information Use in Different Science Disciplines

One of the most obvious differences among the science disciplines is the average age of the literature cited. Using data from the 2002 ISI Journal Citation Reports (JCR), Figure 1 compares the “cited half-life” of serial literature in selected disciplines. Cited half-life is defined as the number of years preceding the current year, which account for 50% of the total citations received by a particular journal in a given year. Basically, it’s a measure of how quickly articles stop being cited. The data show that physicists tend to cite recently published articles, whereas mathematicians cite articles that are much older. That is, the mathematics literature continues to be relevant for a much longer period of time.

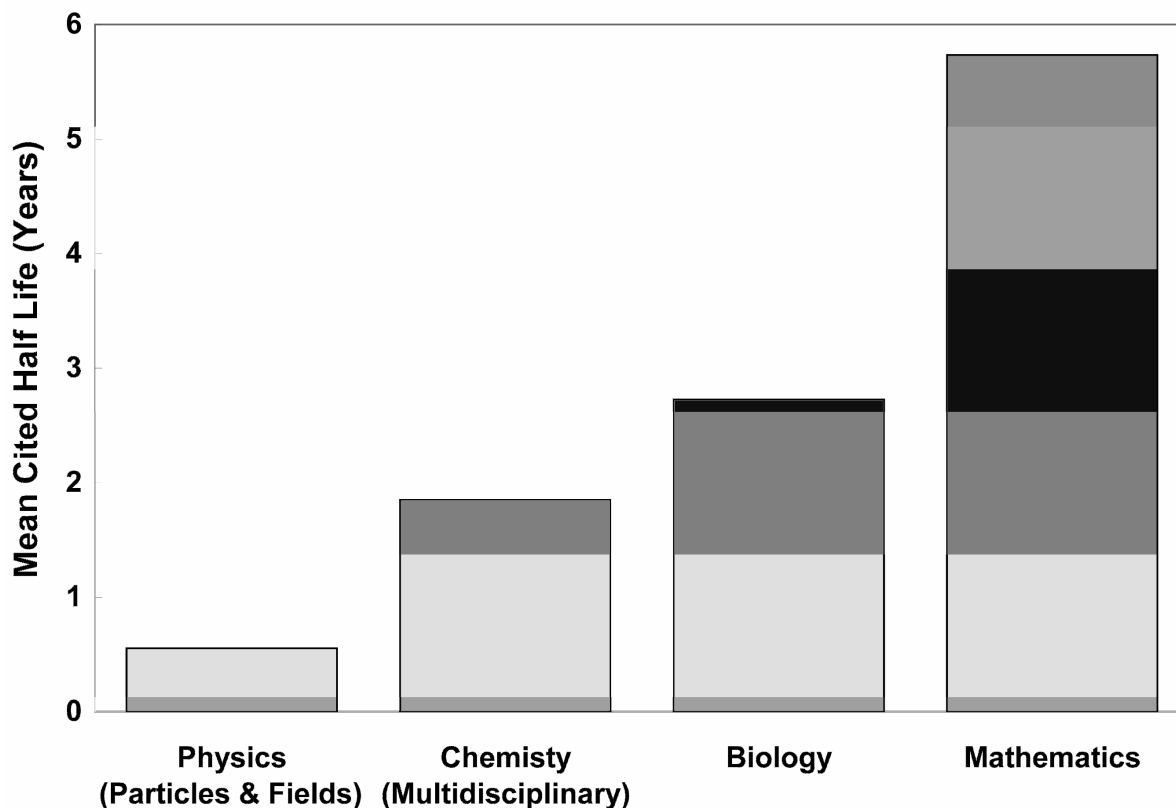


Fig. 1. The Cited Half-Life of Journal Articles in Four Science Disciplines. Based on data from: *ISI Journal Citation Reports, Science Edition*. 2002. University of Illinois at Urbana-Champaign. 8 Sep. 2003. <<http://isi4.newisiknowledge.com/>>.



JCR's half-life scale ends at "greater than 10 years," so the persistence of longer-lived literature is underestimated. Figure 2 shows the age of literature cited beyond this 10-year threshold. The differences between the disciplines are substantial. Most zoology citations are to works over 50 years old, while very few physics citations are older than 20-30 years. The following sections will examine some of the reasons for these differences and the implications they have for libraries.

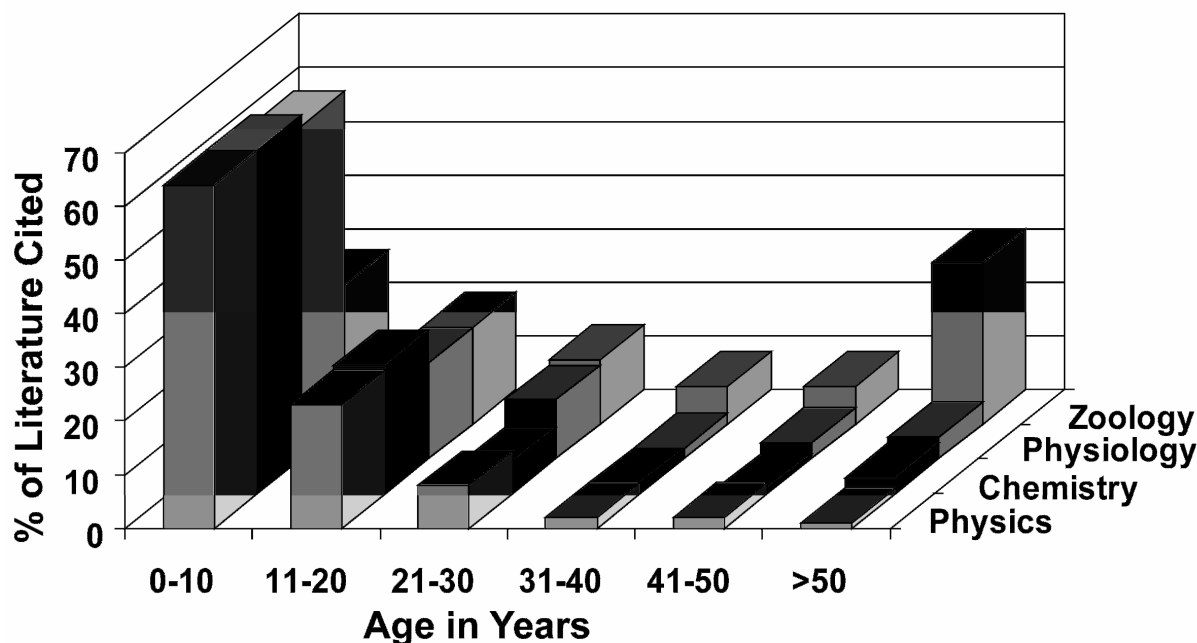


Fig. 2. The Age of Literature Cited in Four Science Disciplines. Adapted from: Kronick, David A. The Literature of the Life Sciences: Reading, Writing, Research. Philadelphia: ISI Press, 1985:65.

### Physics

Currency is so highly valued among physicists that they devised their own informal publication system to make research findings available more quickly. Physicists distribute *preprints*—papers that have been submitted for publication, but not yet refereed. Preprints are most heavily used in the subfields like particle physics that practice so-called "Big Science" (Weinberg) involving large-scale, multi-institutional research projects. In this complex and costly research environment it is essential to keep abreast of current research to avoid the duplication of effort. Physicists studying high-energy particle theory established the first electronic preprint (aka eprint) archive at the Los Alamos in 1991 (Ginsparg), which has since moved to Cornell and is now known as ArXiv. It has also been joined by other e-print servers, all of which are comprehensively indexed, freely accessible over the web, and include preprints, published articles, and papers never submitted to journals.

Although heavily used, preprints are rarely cited. A recent study found that only 3% of the citations in refereed journals were made into preprints (Claspy). Refereed journals are still important as the official record of research and discoveries. From a librarian's point of view, this means that e-print archives will probably not replace serial subscriptions in the near future. The two will continue to coexist for some time and libraries will need to facilitate access to both types of publications. For both articles and preprints, electronic access seems to be the preferred format. A recent survey of astrophysicists found that 80% of the articles they read were accessed electronically (Tenopir et al.).

Few physicists use retrospective literature as a regular part of their research activities. Only 4% of citations in current articles are to research more than 30 years old, while 90% of cited articles are less than 20 years old and the majority were published in the last 6 years (Claspy). Most physicists have little occasion to consult materials in languages other than English (Prasad and Tripathi), largely because most physics literature is published in English and the major Russian, Chinese, and Japanese journals are available in translation.

Monographs are seldom cited in physics articles and dissertations (Claspy), but are heavily consulted for teaching purposes (Brown). They are also used for lab work and as a source for the consolidation of ideas in specific subject areas. With regard to collection building at a teaching institution, this means that care must be taken to select those monographic titles of most use to your local curriculum. Luckily, relatively few monographic titles are published, making it easy to keep abreast of new titles of interest.

The physics literature is highly compartmentalized. New or developing fields are regularly split into ever-smaller sub-disciplines that have their own journals or are published as stand alone sections of existing journals. This allows researchers to obtain personal subscriptions to smaller journals in their field, but causes difficulties for libraries hesitant to subscribe to new journals when budgets are tight. On the other hand, it does allow libraries to be selective and choose only the most locally relevant titles rather than having to subscribe to a single expanding title.

## **Mathematics**

Preprints are also heavily used in mathematics. Until recently, these were distributed via mail or email to informal networks of colleagues, but mathematicians have started developing centralized, searchable e-print servers like those in physics. Math ArXiv, for example, indexes articles on topics ranging from algebraic topology to quantum algebra. A number of other, more specialized servers focus on specific research areas.

Despite the importance of preprints, mathematics literature retains its value over a long period of time and the half-life of mathematical literature is longer than in any other science field (Garfield vol. 5:674). Knowledge in math is cumulative and old problems have continuing relevance. The importance of older material makes preservation an issue and is an important consideration when making weeding decisions, though JSTOR's a collection of back issues for 17 core math titles helps alleviate some of these concerns. Luckily for space-hungry libraries, even though mathematics is thousands of years old, the body of literature is quite small relative to that of

other science fields. Mathematics has not had the information explosion that has occurred in other sciences (Gould and Pearce).

Mathematicians are known for their intensive library use. Because of their reliance on retrospective literature, mathematicians depend heavily on library collections, and are less likely to have personal subscriptions to core journals in their field (Brown 932). They prefer to have a library near their office, sometimes referring to it as the “laboratory for mathematics.” Historically, mathematics has been the product of human thought, unaided by technology or lab equipment. For this reason, mathematicians in less developed countries are able to make important contributions to the discipline, which is less common in fields like physics that require infrastructure and large-scale funding. Because of the need to keep colleagues in developing countries in the loop, mathematicians are somewhat cautious about adopting solutions that require the latest computer technology.

Mathematics research is often published in monographs, particularly in monographic series. Brown found that the math faculty at the University of Oklahoma were *less* likely than other scientists to use monographs for teaching, but far *more* likely to use monographs in their own research (931). The indexing and abstracting services in math cover both serials and monographs. There is some difficulty, however, in retrieval of older material due to the use of symbols not found in standard keyboards. Pre-1985 records can be difficult to retrieve and read in MathSci, because they were entered before TeX adopted was the standard for coding mathematical notation.

## Chemistry

Chemists’ information needs are continuous and on-demand (Hurd et al.). They prefer to have departmental libraries near the lab for quick consultation of reference sources during experiments and often have their own personal subscriptions to core journals in their area of interest. Not surprisingly, chemists have been enthusiastic adopters of e-journals. Information-conscious chemists who used to set aside time each week to browse through current journals are now making use of current awareness and alerting services (Brown).

Information overload is a problem for chemists and they need tools for filtering information. Rising journal prices, the proliferation of new journal titles, and the advent of new online journals, handbooks and services, makes it hard libraries to keep up with the proliferation of chemistry publications. In addition, chemistry serials have one of the highest costs per volume of any science discipline. It’s not uncommon for more than 90% of chemistry budgets to be allocated to serials (Gould and Pearce).

Because the chemical and physical properties of materials don't change over time, older literature is just as important as the current literature. Back files from 1907 were recently added to CAS SciFinder, facilitating access to retrospective literature. Chemistry has the best-organized literature in the sciences, except for physics. Both have high degree of bibliographic control, partly because society literature dominates both fields (Gould and Pearce).

Monographs are only of occasional importance in chemistry research. One citation study of chemistry dissertations found that monographs comprised just 8% of all citations (Gooden). Citation analysis probably under-represents the use of monographs in research, since handbooks describing chemical structure, properties and reactions (e.g., Merck Index) are frequently consulted, but rarely cited in articles or dissertations. Manuals and other monographs are also widely used for teaching and essential for students (Brown 931). Most of the standard handbooks are also available online, bringing access to another important information source into the lab.

## **Biology**

Biology is a diverse and varied discipline. Since the discovery of DNA in 1953, the field has undergone a tremendous expansion, resulting in a breakdown of the traditional subfields of botany, physiology, etc. A new body of research has replaced the focus on the organism with an orientation toward theory and technique. Biology can now be divided into two main orientations—organismal and biochemical/genetic. Unlike the chemistry, the biological literature is messy and not very well controlled. There is no single indexing and abstracting service that covers the entire discipline, although Biosis, Zoo Record, and Medline each cover segments (Gould and Pearce).

### **Molecular Biology and Biochemistry**

Biochemists do lab-intensive work, which makes convenience and accessibility important. One study of biotech researchers found that they used the library only as a last resort and that they strongly preferred to use personal collections (Grefsheim, Franklin, and Cunningham). Even when the material was available in the library down the hall, they still maintained their own serial subscriptions. This study was conducted before e-journals became established—one wonders if these researchers now using their libraries' online subscription to get access from their labs.

In fast-moving fields such as genomics, biologists have the same need for up-to-the-minute information that particle physicists have. This, too, is "Big Science." Electronic preprint repositories have begun to appear, including BioMed Central a website hosted by a commercial publisher that offers free access to research reports in medicine and biology.

### **Organismal Biology and Ecology**

Organismal biologists, on the other hand, need to make frequent reference to older literature. When describing a new species of plant or animal, botanists and zoologists trace taxonomic nomenclature going back to Linnaeus in the 18<sup>th</sup> century. Older literature is an intrinsic part of the description of species and genera (Gilbert and Hamilton 6). Ecologists similarly use older literature to track changing conditions of an ecosystem. In both cases, retrospective print indexes and specialized bibliographies can greatly facilitate research. Figure 3 gives some indication of the comparative staying power of the literature in organismal biology. Whereas the biochemical literature has a half-life of less than a year, zoology's is almost five years.

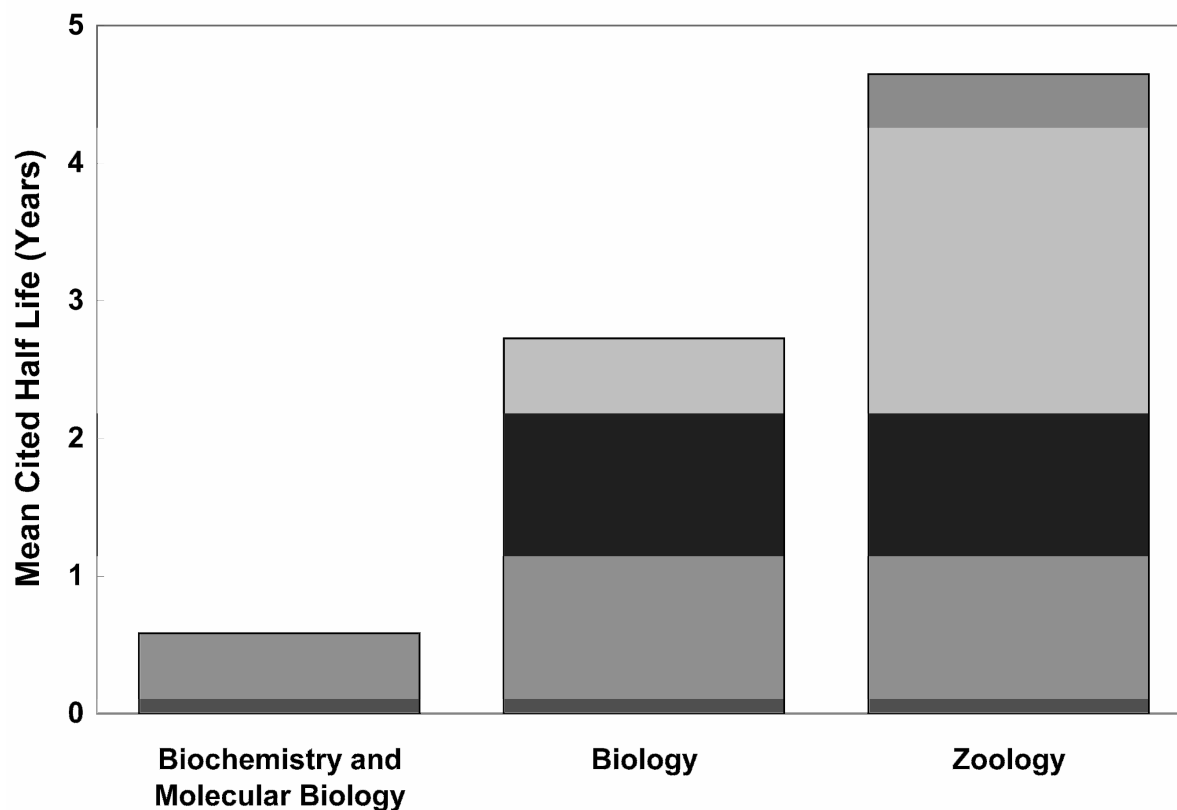


Fig. 3. The Cited Half-Life of Journal Articles in the Biological Sciences. Based on data from: ISI Journal Citation Reports, Science Edition. 2002. University of Illinois at Urbana-Champaign. 8 Sep. 2003. <<http://isi4.newisiknowledge.com/>>.

The taxonomic literature is worldwide in scope, multilingual, and chronologically inclusive. Language is usually not a barrier, since species names are given in Latin. Even if the description is in an unfamiliar language, the illustrations of the distinguishing characteristics of a species are still useful.

Monographs are of central importance in organismal biology and quite a large number are published, more than in any of the other science disciplines (Davis and Schmidt). As I learned during my five years at the Illinois Natural History Survey Library, some scientists do use monographs!

### Conclusions

An understanding of the types of information needed and how it is used can provide guidance in grappling with some of the difficult issues facing librarians. There has been an information explosion in the sciences and serial costs usually outpace inflation. Most major science journals are now available both online and in print which often means libraries end up purchasing both formats or paying twice for online access to the same title via different aggregators. When faced with tough decisions about what titles to keep and in what format, is important to be mindful of the preferences and priorities of the various disciplines. Biochemists might be willing to forego

the guarantee of access to older issues for the ability to download current articles from their labs while botanists need access to the entire corpus of retrospective materials. These factors also need to be weighed when considering what to weed or send to remote storage.

It helps know the discipline, but it is even more important to know your users. Walking the halls, reading syllabi every semester, finding out what sources professors and students are using and in what format, what frustrates them most when they are doing research, are some ways to keep track of users ever-changing information needs. More formal methods, such as user surveys, journal use studies, and cost-per-use studies can also be employed. Measuring and evaluating electronic usage is challenging, however. Vendor supplied data is seldom complete (although some vendors like Ingenta provide excellent data) and often difficult to compare to other types of usage data. Tenopir's survey-based study of electronic journal use is a good start toward understanding the way researchers have incorporated online resources into their information seeking behaviors. Since online activity is becoming an increasingly important dimension of information usage patterns, this promises to be an area of increasing interest and research activity.

### Sources for Further Information

Gould and Pearce is a comprehensive guide to information needs in particular disciplines, although it's quickly becoming dated in a rapidly changing information environment. The companion volumes on the humanities and the social sciences are also highly recommended.

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## **Pleasing Everyone: Expanding Library Services During Budget Cuts and Freezes**

Dustin P. Larmore

Dustin Larmore is Technical Services Librarian at Karl E. Mundt Library at Dakota State University in Madison, South Dakota, and holds the rank of Instructor. As Technical Services Librarian, his duties include acquisitions, cataloging, serials management, collection development, collection management, and overseeing licensing of electronic resources. He has written one electronic serials management conference summary for a MINITEX conference, due to be published in volume 36, no. 1 of Cataloging and Classification Quarterly. Mr. Larmore received his Master of Science in Library Science from the University of Kentucky.

### **Abstract**

This presentation will provide attendees with ideas on how to assess their libraries' resources and improve and expand library services during times of budget freezes and cuts. A brief explanation of collection assessment will be given to start the discussion. A review of the literature concerning resource evaluation and budget planning will be discussed to give librarians the necessary background to make decisions reflecting their own institutions' needs. Following this discussion, the presenter will describe his small university's thought processes and procedures in determining which resources, services, and publications to trim and which to add or enhance. The evaluation process involves analyzing current database usage statistics, and soliciting input from faculty, staff, and students regarding needed information resources. The presenter will elicit and encourage attendee involvement to help librarians collaboratively decide on what will work best for their individual institutions. The discussion will conclude with an overview of what was gleaned from the presentation and a look to future changes and developments in attendees' institutions.



## **But ... I'm Not a Lawyer! Mistakes to Avoid in Negotiating Your First License Agreement**

Ben Lea

Ben Lea is a Reference Librarian and the Electronic Resources Coordinator of Curtis Laws Wilson Library at the University of Missouri-Rolla. In the previous five years, he has negotiated more database and electronic journal licenses than he can count.

### **Abstract**

While negotiating license agreements should not be undertaken lightly, neither should it be feared. Intended to lessen this fear, this paper will discuss the particulars of various clauses and their ramifications, notable omissions, and how to negotiate with vendors to change the agreement, by adding, striking, or modifying different clauses to arrive at an equitable compromise.

Very few librarians have much legal education, yet we find ourselves acting as attorneys more and more. With seemingly every electronic book or journal or database we add to our library's collection, we are required to abide by some set of restrictions. We're told what we can and cannot do with the information we're accessing. We're told what will happen to us if we violate this contract.

We're also told that if we don't sign on the dotted line at the bottom of that contract, we cannot use the software or access the database at all. We need the information this product offers us; more often than not, we need it *now*. There's a natural tendency to think, "I don't need to worry about this. After all, this is a standard contract; it must work well enough, because everyone else is using this product." So, we readily agree to the terms, acknowledging that we've read over the terms and consented by signing the document or electronically agreeing (so-called "click-through licenses"). And that's that; we don't have to think about it ever again.

Simple, right? Well... What you've just approved is a license agreement, and if you haven't looked it over carefully, you may have a nasty surprise in store. Fortunately, with a little training and a little experience, you can get a better handle on what promises you should make to the vendor and what promises you *shouldn't* make.

Before we begin though, an important disclaimer: the author is a reference librarian at an American university. I am not an attorney, and I wouldn't want the reader to take this article as legal advice. The intent here is to give you an overview of what license agreements are and what they are not. Reading this chapter will not make you an expert in contract law, let alone prepare you to pass the bar exam. The best advice when it comes to the practice of law is *always*: consult an attorney.

## **Easing Past the Fear**

Even using the phrase “consult an attorney” may have scared a lot of people. When laypeople hear words like “contract”, there’s a tendency to recoil instinctively. Perhaps we’ve heard the line about the man who defends himself in court having a fool for a client. This is one reason why it’s a good idea to have a civil attorney look over the license agreement before it gets signed. Ideally, the librarian and the legal counsel will develop a solid working relationship. As a librarian, you should read over the agreements with an eye toward what the library is getting and what responsibilities the library is taking on. Then, communicate to the attorney what concerns you have, and work with him or her to modify the agreement so that it suits your particular situation.

The first hurdle a librarian has to clear in order to be an effective license negotiator is that initial fear of “legalese”. It’s a common affliction; we see fine print and our eyes glaze over. However, it’s important that you read legal documents with a fresh mind, so if you find your attention wandering, put it down momentarily. “Legalese” may seem confusing at first, but jargon in any field is confusing initially. If there’s something you don’t understand, ask someone. Make sure you understand everything before you allow someone to sign off on a contract.

The second hurdle is the perception that the license agreement is a take-it-or-leave-it proposition. Remember: license agreements are equal parts “licenses” and “agreements”. They are negotiable contracts; you don’t have to settle for the boilerplate. If there’s a provision you don’t like, talk to the vendor, and explain to them why it represents a stumbling block. After all, the vendor wants to sell you the product associated with the license agreement. If something is so problematic to you that you’re considering not purchasing the product, then the vendor will want to work with you to resolve that problem. As a general rule, any sweeping changes in the way that a license agreement is interpreted should be discussed with the vendor beforehand, while small-scale amendments can be made on the library’s end before you re-submit the agreement for final approval.

## **Deal-Breakers (On Both Sides)**

In many cases, there will be clauses in a license agreement that the library simply cannot fulfill. By way of example, many states have a law that forbids public entities from indemnifying vendors; if your library is a public institution in one of those states, you cannot indemnify the vendor in any license agreement. Many agreements that come across your desk will have an indemnification clause in them.

The first step is deciding whether a particular clause is a deal-breaker for you, or if it is simply one you’d prefer to omit. There are no hard-and-fast rules for this; it comes down to an individual library decision. Weigh the needs of the patrons that can be met by this particular electronic resource against the additional time, resources, etc. that the agreement demands of the library staff.

Some clauses force the library to add additional layers of complexity such as maintaining records of use, or sending IP address changes to the vendor. In these situations, determine who within the library will take on these additional responsibilities. Notifying vendors that your IP range has changed is a minor point, and certainly shouldn't be a deal-breaker; you'll want to keep the vendors up-to-date on those changes, so your patrons don't lose access, even temporarily. But libraries with small Interlibrary Loan departments might not be able to provide a vendor with a detailed list of what patrons received which articles through ILL.

There are, of course, deal-breakers for the vendor as well. Especially in the case of databases or electronic journal aggregators, they have analogous license agreements in place with the publishers of the information they're providing. Understandably, the agreements they send to libraries reflect those contracts with publishers, so there could be clauses that they cannot budge on. If there's a clause that you can't live with and the vendor cannot change, then a compromise may be impossible.

### Definitions

License agreements often begin with a long list of definitions, intended to save confusion and space throughout the rest of the document. In many cases, these definitions are designed to serve one type of library very well, but don't fit another at all. (Case in point: Does "one geographic location" in an agreement mean all libraries on your campus, or all branches of the public library in the system?)

Read the agreement carefully. Do the definitions apply to your type of library? Do they make sense for your library? If not, then it's time to get on the phone with the vendor. Clarify these points. Just as importantly, get the changes in writing, so there won't be any confusion later. If the agreement isn't clear on a point, then you can add clauses that will clarify it. That's part of negotiation: adding clarifying material to make sure each side understands what it's getting and what its responsibilities are.

It is a constant source of amazement to me how many license agreements spend some length talking about what "authorized users" can or cannot do, but never take the extra paragraph to define "authorized users". This is an ideal opportunity to standardize your own language and add necessary parts to the agreement. You can even borrow from one agreement to strengthen another, if you find an agreement that has a clause you like. For example, I often use the following definition of "authorized user", adapted from a license agreement:

Authorized Users are those individuals officially affiliated with the Licensee, for example, those serving in the capacity of employees, consultants under contract with the Licensee, faculty and other teaching staff, and persons officially registered as full or part-time students, that are located at the Authorized Site. ... Others who are physically present at an Authorized Site (for example walk-in patrons) may access the Published Materials...

Fig. 1: Wording Used at Curtis Laws Wilson Library at the University of Missouri-Rolla.  
Adapted from:

License Agreement for Internet Access to American Institute of Aeronautics and  
Astronautics Published Materials, AIAA, Reston VA, 2002.

### **After the Definitions...**

The two key sections of any license agreement (after the terms have been defined) can be thought of as the “what you can do” and “what you can’t do” sections. These sections require the reader’s attention most. Read them carefully, referring back to the definitions if need be. Make sure that your particular library’s needs are explicitly spelled out, especially things like ILL or remote access. If there’s something missing, add the appropriate clauses; remember to get in contact with the vendor, if the additions are key.

A good piece of advice is: keep a blank piece of paper nearby as you read the agreement. If you have concerns, note them down, along with what clause it refers to. Then, when you speak to the vendor, you have everything in one place.

### **That’s the End of the Contract... Now What Do I Do?**

You’ve finished working through the agreement, and now you’re ready to talk to the vendor, if you can find the right person to talk to. The easiest path to that person is to start by contacting the sales representative you’ve been working with. Tell them that you have some concerns with the license agreement, and ask them for the contact information of the person you should address those questions to.

It is a matter of personal style whether you begin negotiations on the phone or in print. Personally, I find it’s better to make contact via e-mail, and then set up a time to talk on the telephone about my concerns. Of course, in some cases that may not be feasible; many vendors operate internationally, and time zone differences may cause telephone contact to be difficult. Either way, you’ve spent quite some time looking over the agreement and thinking about the problems that could arise; springing a negotiating session on an unsuspecting person on the phone may start things off on a negative tone. Setting up a time to discuss it is both polite and good business sense.

It’s even better business sense to send an annotated version of your concerns via e-mail prior to speaking on the phone. Similarly, if there are clauses you’d like to add (for instance, language defining “authorized users”), you should include those as well. That gives the vendor’s legal counsel an opportunity to look over that language and to suggest any changes that might be necessary. The single most important thing to remember about negotiating is this: you’re not trying to beat the vendor; you’re trying to work with the vendor to craft an agreement that meets everyone’s needs while protecting everyone’s rights. Generally speaking, it really is just that simple. Going into negotiations with an antagonistic attitude is almost always counter-productive.

### **It’s Signed and Approved... Now What?**

First off, congratulations! Negotiating an agreement can be time-consuming and frustrating, especially the first time you do it. But, you’re not quite done yet. Don’t forget to let others in the library know what the agreement says you can and cannot do. The agreement won’t protect you if the rest of your library doesn’t know what their restrictions are. It’s probably a good idea to keep all the agreements in one place, so that they can be readily found. It’s an even better idea to

have the key points of the agreements easily accessible for the rest of the library. Post a website, create a database, print up a poster for the library. Even a simple table with fields like “electronic resource name”, “can it be accessed remotely?”, and “can we use it for ILL?” will save a lot of stress for everyone.

Also remember that you’ve now committed the institution to a contract. If the library has responsibilities in that agreement, then the library has to set up the infrastructure to fulfill those responsibilities. If Steve Land Publishers insists that the library keep records of everyone who uses steveland.com, then the library will have to figure out a way to keep those records and to transmit them to the publishers when appropriate.

### **Acknowledgments**

I am indebted to colleagues at law libraries throughout the state of Missouri for helping me understand the intricacies of contract law, especially as it pertains to libraries. Without the help of colleagues including Richard Amelung at St. Louis University’s Omer Poos Law Library, Resa Kerns & Martha Dragich Pearson at the University of Missouri-Columbia’s School of Law Library, and Nancy Stancel at the University of Missouri-Kansas City’s Leon E. Bloch Law Library, this chapter would have been impossible to write. My initial training in negotiation was at an Association for Research Libraries workshop; there is no better place to learn the basics and face up to your fear of licenses. For more information about those workshops, visit the ARL website at <http://www.arl.org>. I would be remiss if I didn’t also thank my colleagues at Curtis Laws Wilson Library at the University of Missouri-Rolla, both for allowing me the time to work on this paper and for diverting me when a diversion was appropriate. Most importantly, thanks to Pete & Janice Lea, who deserve to see their names in print much more than I do.

### **Further reading**

As promised, this article provided only the broadest overview in terms of contract law. Interested readers may wish to look at Peter Siviglia’s *Writing Contracts: A Distinct Discipline* (Carolina Academic Press, 1996) as well as Claude Rohwer’s & Anthony Skrocki’s *Contracts in a Nutshell* (5<sup>th</sup> edition, West Publishing, 2000). An expanded version of this article will be published in *A Handbook of Electronic and Digital Acquisitions*, by Haworth Press (in publication).

## **Making a Web Tutorial with Camtasia**

Carol Lockhart

Carol Lockhart is a Reference Librarian at Pickler Memorial Library, Truman State University, Kirksville, Missouri. She has been there since 1982. She specializes in the sciences. Before coming to Truman, she was at the State University of New York-Purchase.

### **Abstract**

Creating a web-based tutorial can be dynamic and easy. A tutorial was created on how to request materials on MOBIUS. Camtasia, a screen recording software was used to create the tutorial. The tutorial has audio and visual instruction, which can be viewed on any web page. Camtasia is a product of TechSmith Corporation.

Tutorials can be made for any library activity from viewing you library account to learning how to use a database. This talk will demonstrate a Camtasia tutorial, demonstrate how to create a Camtasia tutorial, and discuss the technical implications of having a tutorial run network wide.

For an example see: Tutorial for Mobius at  
[http://library.truman.edu/camtasia/tutorial\\_for\\_mobius.htm](http://library.truman.edu/camtasia/tutorial_for_mobius.htm)

## Electronic Resource Licensing Fundamentals

Jo McClamroch

Jo McClamroch is the Electronic Resources Acquisitions Librarian at Indiana University Bloomington. She works with Collection Development librarians and administrators to manage an electronic materials budget of approximately \$2 million. She collaborates with staff on eight regional campuses of Indiana University to ensure seamless access to a suite of 30 or so electronic databases held in common. Her motto, especially for all things electronic, is, “the fun never ends!”

### Abstract

Access to each electronic database or aggregator to which your library subscribes will more than likely be governed by a legally binding license agreement. Someone has to review it, someone has to understand it, and someone has to sign it. Congratulations—you’ve been elected! This paper offers a brief overview of the fundamentals of electronic resource license agreements. It examines the who, what, where, when, and how of e-licensing. We’ve determined that the “who” is you! “What” refers to the minimum considerations required by your institution in a purchase agreement, “where” will the resource be made accessible, “when” will access begin and for what term, and just “how” do you get from request to access? Numerous articles, even books, have been published on this topic. This paper is meant to serve as a beginner’s guide or template. Some Internet resources that will help with the basics are provided in the bibliography. The best and most comprehensive web site is “liblicense,” created and maintained at Yale University Library.

### Who, What, Where, When, How

**WHO:** There will be a minimum of two participants to an electronic resource license agreement – the Licensor and the Licensee. The Licensor may be the publisher (e.g., Kluwer), or the aggregator (e.g., EBSCO), or the vendor (e.g., CSA). The Licensee is your institution. The actual license agreement will be signed by a representative from your institution. It is determined locally who is authorized to sign contracts. It could be someone from the university’s legal department, or it could a dean or director from your Library. The minimum requirement is that whoever signs a contract must be someone who is duly authorized by the Library to enter into such an agreement on behalf of the Institution. This responsibility is often conferred on a high-ranking administrator.

**WHAT:** A contract for a library to access electronic data goes by a number of names: Institutional User Agreement; Database License; Publisher Conditions for Use. If the document requires signatures by someone at your institution authorized to make financial commitments, it’s a serious license agreement. A license agreement specifies in varying degree of detail what data/information you (your institution) is entitled to access, how much you will pay for it, how long you are entitled to access, what you will do to ensure legitimate access and prevent abuse, what methods both parties will use to ensure compliance with the terms of the agreement, what recourse each party will have should a disagreement arise, etc.

WHERE: In my experience as the Electronic Resources Acquisitions Librarian at Indiana University Bloomington, the where is usually the Internet. License documents are transmitted back and forth via email, discussed via phone calls or email; and signed documents are delivered via overnight mail services.

WHEN: For the protection of your institution, it is wise to insist that a fully executed, that is, officially signed, license agreement is in place before the resource is made available to your patrons. It is not necessary to have actually paid for the subscription since the fully executed license agreement spells out the financial obligations. Completing the license agreement before access is enabled helps avoid misunderstandings.

HOW: Sounds good so far. But how do you assess a contract for electronic data? It's generally a good idea to begin with what you know.

### **Minimum Daily Requirements**

Your Library knows what its minimum criteria are – for access, for price, for technical support. And your Library knows which condition might be a “deal breaker.” A deal breaker is any condition that your Library finds unacceptable and one which the Licensor refuses to compromise. It could be price, it could be the lack of remote access – this is institution specific. The Indiana University Bloomington Libraries are guided by these minimum requirements:

- ◆ Remote access is permitted for authenticated users;
- ◆ Remote access is provided via IP address (rather than by username and password);
- ◆ Casual, “walk-in” users are permitted;
- ◆ Interlibrary loan is permitted;
- ◆ Automatic renewal of license is provided for unless otherwise notified in writing;
- ◆ For any alleged material breach, a cure period is clearly defined;
- ◆ The law that will govern any legal disputes is the home state of the Licensee;
- ◆ No fees or penalties for late payment will be assessed;
- ◆ Unlimited simultaneous users are allowed.

### **Anatomy of a License Agreement**

There are some license agreements that are beautifully written, others that are horribly written, and everything in between! The best ones begin with a list of “Definitions” of the terms to be used throughout the agreement. It is your responsibility to verify that these definitions are used consistently throughout the agreement. Clarity now averts ambiguity later. Some basic yet important definitions to include are:

- ◆ Who is an “Authorized User (AU)”
- ◆ What is remote access
- ◆ What is a “site?”



As an academic institution, we define our core *Authorized User* as any currently enrolled student, any faculty member (visiting or permanent), and any staff member of the University. We also include in the definition of AU any person who may use the resource on site (that is, actually physically within a library building). This latter user is also known as a “casual, walk-in user.” As a state-funded, public institution, IU is obligated to serve all citizens of the state of Indiana, and so we do insist on walk-in users in our license agreements.

Another crucial definition is *remote access*. Remote access means access from outside of the library – from a faculty office on campus, from one’s home, from one’s dorm room, or from an overseas study venue. Remote has nothing to do with distance. Parallel to remote access is *authenticated access* via a proxy server. The Licensor and Licensee work cooperatively to ensure that access to the electronic resource is fairly limited to legitimate users only. Remote access is provided to authenticated users affiliated with that particular site.

Indiana University is a large system with eight campuses. The Bloomington campus (IUB) is the flagship campus, and the Indianapolis campus (IUPUI) is the second largest. For licensing purposes, how many sites do IUB and IUPUI equal? A *site* is generally defined as a single geographic locale, distinguished also by having separate administrative structures at each location. A *site* does not generally refer to a single building, but rather to a geographically discrete campus or location.

The remainder of the license agreement will consist of contract clauses for some or all of the following items.

- ◆ Services Covered
  - Permitted Uses
  - Prohibited Uses
  - Usage Reports
  - Technical Support
- ◆ Warranty and Liability
  - Third Party Limitations
  - Disclaimer of Warranties
  - Limitations of Warranties
  - Force Majeure
- ◆ Term and Termination
- ◆ Access and Fair Use
- ◆ Payment
- ◆ Cessation of Services
- ◆ Material Breach
- ◆ Severability
- ◆ Entire Agreement
- ◆ Governing Law
- ◆ Dispute Resolution
- ◆ No Assignment
- ◆ Survival

## **It's Just Words... Really**

Every profession has its jargon, including library science and law. Librarians may use the term “walk-in user” and lawyers may use the term “force majeure.” Though there is some legal terminology you need to understand in order to be a good reader of license agreements, you certainly do not need to be a lawyer.

## **Sources You May Wish to Consult**

### **Web Sites**

Liblicense: Licensing Digital Information, A Resource for Librarians. 2003. Yale University Library. 19 Sep. 2003. <<http://www.library.yale.edu/~llicense/index.shtml>>

Bookmark this site! It includes vocabulary and definitions, sample licenses, discussion lists, and a rich bibliography.

Licensingmodels.com. n.d. Ingenta. 19 Sept. 2003. <<http://www.licensingmodels.com/>>

Provides “model standard licenses for use by publishers, librarians and subscription agents for electronic resources.” Real sample licenses to emulate for all types of libraries – public, academic, corporate!

Licensing Issues. 2002. Association of Research Libraries. 19 Sep. 2003. <<http://www.arl.org/scomm/licensing/>>

This is an invaluable source for academic libraries.

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## **Striking a Balance: Metadata Creation in Digital Library Projects**

Holly Mercer

Holly Mercer recently began work at the University of Kansas Libraries, where she directs metadata creation for campus digital library initiatives. Prior to becoming Metadata Coordinator at KU, she was a Metadata Architect at the Stanford Graduate School of Business where she helped develop information management best practices including metadata standards and training.

### **Abstract**

As institutions develop digital libraries, the work of describing these collections is increasingly taking place outside the library. Content creators and resource authors catalog digital content, yet may not have experience with descriptive metadata standards. One central library repository for metadata has been replaced by multiple collections managed within and outside the library. Librarians act as metadata consultants to digital projects, providing guidance in selecting standards, assistance in metadata creation, and provision of services for resource discovery. Issues affecting quality metadata generation and research in author-generated metadata are reviewed. Successful cases of collaborative and distributed metadata generation are presented, along with strategies implemented with success to achieve quality metadata (Name).

### **Introduction**

Institutions desire to offer access to materials in digital format, whether they are locally developed collections or licensed electronic resources. Metadata harvesting, federated searching, and web services make searching possible across repositories and institutions to locate scholarly digital materials. Most universities do not maintain one Digital Library, but several repositories serving diverse communities and functions. Digital library initiatives include library and archival repositories. Increasingly, digital libraries are also developed as research projects or departmental programs, independent of any library or campus initiatives. Efforts to develop institutional repositories are gaining momentum, and learning management systems function with reusable learning objects. It is easy to see the advantages of having seamless access to the widest variety of resources for learning and research in this networked environment. More content is available digitally, but potential users may not know it exists. Among the challenges these developments present are the changing roles and responsibilities of faculty and staff, both internal and external to the library. New models place more responsibility for managing the resources on the creators of the content. Libraries do not manage these digital resources, yet are being called upon to provide access to these collections. While libraries may provide unified access to these resources, they likely will not catalog them. Librarians will provide leadership as consultants, trainers, and service providers. They will advocate for common standards, train others in metadata creation, and provide value-added services such as federated search capabilities and metadata record enhancement. Metadata is a key in the provision of digital resources.

## Issues in Metadata Creation

Descriptive metadata assists in resource discovery and evaluation – searching and browsing. It acts as a surrogate for an actual resource; non-textual resources require textual metadata for queries (Lagoze). Descriptive metadata and subject schemes serve as a way to organize resources and provide a structure for browsing collections. Standards are necessary to ensure interoperability of diverse resources in distributed collections. Use of a common metadata standard brings order to collections of resources in various formats, or from different knowledge domains.

In order for metadata to be useful, it must meet a certain level of quality. Guy Tozer states it must be complete, accurate, and understood by the user (xxi). Standardizing metadata element values through the use of controlled vocabularies and encoding schemes can raise the level of quality, and also makes data input easier. Fewer choices can mean fewer chances for mistakes. Controlled vocabularies and thesauri also help establish relationships among resources. Incomplete metadata may not adequately identify a resource; it can hamper resource discovery.

Legacy library technologies rely on a centralized database of metadata records. A “disinterested group of information professionals (i.e., *librarians*)” (Brooks) catalogs resources represented in a central database. A widely adopted subject classification scheme accompanies the metadata scheme. Interoperability is not problematic because of the common framework. Providing subject analysis and authority control for resources are challenging and time consuming. Libraries therefore cooperatively share in the cataloging of non-unique materials.

Often resources in digital libraries are one of a kind, or are digital surrogates of unique resources. Original cataloging such as would be necessary for many digital resources is an expensive undertaking. Libraries strapped by budget and staffing limitations cannot catalog everything nor outsource everything to a third party. Libraries may not manage digital library collections that are distributed throughout a university. Librarians may not play a part in metadata generation for those resources. Still, libraries need to play an active role in digital library initiatives and in development of institutional repositories.

Who will perform subject analysis, practice authority control, and establish relationships among resources necessary for creating quality metadata? While computer programs may one day be able to perform semantic analysis, humans must make these connections now. Since it is not scalable for librarians to catalog all digital resources, the task falls to others. If disinterested information professionals cannot generate the metadata, then who better but the creators of the resources themselves?

Jane Greenberg has conducted extensive research in metadata creation. She describes four classes of human metadata creators: professional creators, or experts; technical creators; subject enthusiasts; and content creators, or authors (17). Experts are catalogers and indexers. They are advisors to technical creators and authors. Technical creators have some training in creating metadata, or some knowledge of the content being described. They are typically graduate assistants, program or project managers, or administrative assistants. They work with simple metadata schemes to create metadata, and edit or enhance metadata generated by content creators.

Community or subject enthusiasts generally have not had formal training but do possess subject knowledge of, or interest in, a specific research area.

Content creators are authors, or those who have primary responsibility for the intellectual work (Greenberg 17). They have intimate knowledge of the resources they create as well as knowledge domain expertise. Content creators often possess information about the resources they have created that others would not know (Greenberg et al.). They may also possess a better understanding of relationships among resources that exist in digital collections.

Metadata generation by non-professionals is not new, but managing a variety of digital resources in an organized, integrated fashion is a challenge. Non-experts must understand the importance of standards and how their metadata fits into this new landscape. One obstacle to non-expert generated metadata may be the term *metadata* itself. People who are not library or information professionals may not understand the term. Persons who are experts in their field are often not familiar with data structures and standards.

If authors are not currently creating any metadata for their resources, buy-in to the new workflow is needed. Authors should understand the importance of metadata – that it is an integral step in the creation of the resource and in its publication. Authors can help others locate and evaluate the usefulness of their resources. Content creators have a personal stake in the availability of their work.

One concern authors may have is the perceived increased workload from creating metadata. There may be a sense that the administrative work of generating metadata takes away from the intellectual work of creating the resource in the first place. Counter-arguments include that by creating metadata that adheres to standards, federated searching and metadata harvesters will make faculty research available to a wider audience. Large-scale metadata availability makes conducting research easier because resource materials are identified more quickly. Often content creators are already creating metadata; journals may require an abstract and keywords to accompany a submission, for example.

In one study conducted by Greenberg, expectations for quality metadata creation for non-experts were low, but research and anecdotal evidence did not support this assumption (Greenberg et al.). Her investigation suggested that authors see the value in metadata and believe they should be responsible for creating it. Authors want some assistance from professionals during metadata creation, and wish to be notified if another alters their metadata records (Greenberg and Robertson 49).

Assignment of subject terms is potentially a problem in creating quality metadata because “there are many questions about the author’s ability to provide adequate subject access without being trained in the principles of subject analysis” (Greenberg et al.). Milstead reported that metadata created by or under the auspices of its creator is expected to predominate, “largely because the traditional third-party methods (a.k.a. cataloging and indexing) simply cannot cope with the massive and rapidly growing number of electronic objects in existence” (Milstead and Feldman). In one study, one third of participants indicated expert assistance in cataloging would have been

useful, and more than half indicated they wanted assistance in assigning subjects and keywords (Greenberg and Robertson 48).

Studies show that metadata produced by non-experts can be as good, if not better than that of expert catalogers (Greenberg et al.). Tools used to produce quality metadata include people employed in the proper roles and workflows, standards and documentation, and devices such as metadata templates, editors, and generators (Greenberg 18).

Raym Crow details strategies to encourage widespread faculty participation in institutional repositories in [SPARC Institutional Repository Checklist & Resource Guide](#). These strategies are applicable for encouraging participation in digital library initiatives in general. These tactics include:

- ◆ Produce a briefing paper
- ◆ Establish a project web site
- ◆ Identify existing problems the repository will solve
- ◆ Present the case at departmental and committee meetings
- ◆ Distribute literature
- ◆ Place articles, public service announcements, advertisements in publications
- ◆ Identify key persons to champion the project
- ◆ Develop an early adopter plan

### Cases

The Stanford University – Graduate School of Business (GSB) began in 2000 BestWeb (Business Electronic Strategy and Technology Web), a portal development project including a major site redesign and repackaging of the School's Web-enabled content. One aspect of the project was deployment of a content management system to increase productivity, disseminate management knowledge, and foster communication. There were essentially three administrative roles in the content management system: producers, who had oversight in all areas of content delivery; web authors, who created the content and input into the system; and indexers (professional librarians), who assigned keywords from a thesaurus built in-house for the GSB student portal. There were many challenges in implementing and operating such a full-featured system; not all web authors had the same level of proficiency or comfort level with the new application, or the same understanding of a web publishing system. There was resistance to using the system because the user interface for staff was poor. Producers and authors handled content creation and entry of all descriptive and administrative metadata with the exception of keywords. As all users of the system became more comfortable with its intricacies, the web authors began assigning keywords to their own content. After a trial period where the indexers reviewed the author-generated keywords, that responsibility was turned over in full to the web authors. Indexers continue to collaborate with producers and web authors in maintaining the student portal thesaurus. The perception was that the web authors could not produce quality keywords that would aid in searching within the portal, but the reality was that the keywords produced by the authors were adequate. With training they understood the issues involved in assigning keyword terms to improve access to their content.

Another case from the GSB is an example of collaborative metadata generation among faculty and staff. The Graduate School of Business faculty, assisted by case writers, produce case studies for teaching. Case writers and faculty create metadata for each case, such as: title, creator, abstract, date and version, and subject and keywords. A coordinator manages access to and distribution of all submitted cases and research papers. The coordinator assigns the cases into broad subject categories created by GSB librarians. The coordinator then enters the metadata into a web-accessible database, adding additional metadata (such as rights information), and editing existing records when necessary.

The University of Kansas Libraries have taken an active part in developing the vision for the University's Digital Library Initiatives (KU-DLI). Members of the library have served on planning task forces and cross-functional work teams. They have produced documentation and served as advisors for adoption of metadata standards. The metadata coordinator works with other campus departments to integrate small digital collections into the Digital Library.

The University of Kansas Digital Library Initiatives (KU-DLI) awards grants to campus constituents to encourage development of scholarly digital collections. The projects funded by KU-DLI are accountable for adhering to standards for digitization and preservation as well as metadata. Faculty serve as principle investigators or sponsors for the digital projects. They develop the intellectual content of the collections. The faculty oversee the project, and graduate assistants and staff are the technical creators who generate the metadata for the digital resources. Each project has the flexibility to select a metadata framework for its repository; the metadata coordinator provides guidance and instruction in selecting and implementing standards, including syntax and semantics that are appropriate to the resources in question. By defining a metadata framework within the context of a local collection, communities of practice have more descriptive metadata available to them. For example, geospatial collections can use FGDC Content Standard for Digital Geospatial Metadata, and art image collections the VRA Core Categories. The libraries insure the interoperability by coordinating the integration of local collections in the Digital Library. The metadata coordinator monitors progress in the development of the collections, and coordinates mapping of individual repository formats to the main Dublin Core application used by the Digital Library.

### **Conclusion**

Libraries will increasingly be service providers. They will offer valued-added services, such as spot-checking metadata records or metadata creation and enhancement. More than ever, librarians will be part of a team working to build digital collections. Cross-functional teams will consist of members from the library, information technology, instructional technology, networking, and academic departments. Some people will build content, while others will create policies and infrastructure. Metadata creation may occur in a distributed fashion, with authors, technical metadata creators, and experts working together.

Metadata generation is a collaborative effort. It is increasingly likely to occur outside of the library, but librarians will nonetheless maintain an active role in quality assurance and training. Librarians will instruct members of other campus communities in the creation of metadata. They will be the metadata experts and will work in conjunction with discipline experts in describing

digital collections. Librarians will act as metadata consultants to digital projects and provide value-added services such as record enhancement. They will recommend appropriate standards and subject schemes for digital collections. They will maintain documentation, create crosswalks and data dictionaries, and be the institution authority in metadata standards. With the support of this metadata framework, libraries will provide integrated access to disparate, distributed collections through federated searching and metadata harvesting.

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## Web Tutorials

Chris Niemeyer

Chris Niemeyer holds an MLIS from the University of Texas at Austin. He has been a Library Instruction Coordinator-Reference Librarian at the University of Missouri-Saint Louis since 1999. In his current position he creates interactive, web-based tutorials. Previous to this he developed computerized tutorials for Library 160, a library instruction course at Iowa State University. He has published articles for Library Hi Tech and Reference Services Review on Authorware, and on computer-based testing and instruction.

### Abstract

Web tutorials created at the main library of the University of Missouri-St. Louis (UMSL) have been linked by libraries worldwide. The tutorials highlight the basics of searching particular databases and the library catalog while also teaching information literacy concepts. The tutorials succeed because of content, interactivity, and because they present information clearly in an accessible format. The following design/stylistic principles were used which make it easy for users to focus on tutorial content: 1) Each tutorial has a consistent layout; there are no bewildering changes in appearance. Explanatory text, 'continue' buttons, etc., are consistent throughout the tutorial. 2) During the instructional sections of a tutorial users are guided to doing just ONE thing at any given screen, such as clicking a 'continue' button or performing an exercise. This is a "one-screen, one action" rule. Such radical simplicity in navigation helps users to focus on what is being taught. 3) Users NEVER have to do any scrolling at a given screen. Scrolling violates the "one screen, one action" rule from #2 above. Thus every screen has been manipulated to completely eliminate scrolling. 4) Through the use of colors, frames, fonts, etc., users have no trouble distinguishing the different parts of a given tutorial screen. Screen appearance is never bewildering. 5) Large fonts are used for explanatory text. Users can sit a comfortable distance from the tutorials and easily read the explanations. 6) The screens are not jammed-full of text. Sometimes explanations are as minimal as a lone sentence. If explanations become too wordy they are split-up and put on consecutive screens. 7) The explanations are clear and concise; they do not over-explain. 8) The tutorials have a documentary narrative style. The style provides helpful commentary and analysis but no silly humor, dry observations, cleverness or anything else that can distract users. But if the tone is formal it is never lifeless; a certain friendliness is always present. 9) The tutorials do not teach every single option for a database. Over-teaching is overkill. Only helpful basics are covered. If other options are felt to be important they should be saved for an "advanced searching" tutorial. 10) The tutorials are clearly modularized so that users get a good idea of pacing. In addition, the tutorials follow these guidelines which to some extent tie-in to the design/stylistic principles above: 1) The tutorials are interactive because people learn by doing. 2) The tutorials seek to copy the exact appearance and behavior of the database or resource that is being taught. 3) The tutorials use special effects only to support what is being taught. Flashy special effects in and of themselves don't do anything if they don't teach anything, plus they can be distracting. Finally, the tutorials also require no plug-ins since they use the functionality provided by Javascript that comes built-in to Web browsers and can make Web pages interactive. Please see: <http://www.umsl.edu/services/libteach/tutorials.htm> for more detailed information.

## **Clicking Outside the Bricks—Digital Sizzle and Faculty/Librarian Collaboration**

Linda Parker

Linda Parker is currently a Social Sciences Reference Librarian at the University of Nebraska (UNO) at Omaha. She works with faculty and students in ten areas--Public Administration, Psychology, Political Science, Sociology, Human Resources and Family Science, Women's Studies, Black Studies, Chicano/a/Latino/a Studies, Native American Studies, and Philosophy. In previous positions, she has served as head of reference, women's studies librarian, and cataloger. In her various roles, she has been involved in the planning and implementation of reference services. Her latest responsibility was coordinating a study of virtual reference service at the UNO library.

### **Abstract**

During the past thirty years, the work of reference librarians has evolved from 40 hours at the Reference Desk to 40 hrs @ the reference desk. When the baby boomers entered the library profession in the early 1970s, reference librarians worked on the Reference desk from 20 to 40 hours/week. Everything focused on in-person, on-site, one-to-one answering questions. In the mid-1970s, Dialog database searching required new skill sets. Then the bricks started to sizzle.

The librarian's image began to change in the eyes of the faculty, but this presentation is not about the old debate regarding a librarian's status. It is about the work itself; questioning how/if the tools of the trade have changed the very nature of the work, and thus the relationship with faculty.

Changes in Reference are parallel to shifts in technical services. Like cataloging, more of the professional work in reference has been downshifted to paraprofessionals. In the 1970s, Reference librarians' duties began to change with the inclusion of collection development, library instruction, and faculty liaison. Services provided by reference librarians have evolved from librarian-mediated "Where are the books?" to patron self-service in the virtual library.

As technology has evolved, we ask ourselves, what is the digital sizzle and where does it come from? How does the sizzle impact the interactions that librarians have with faculty (and students)? My contention is that the interaction has changed from information retrieval to information provider/research collaborator. I will (1) explore how this evolution has shaped the role of the reference librarian and his/her interaction with faculty and (2) speculate on implications for the future.

## **Virtual Reference Realities: If You Build It, Will They Come?**

Todd Quinn and Lea Briggs Simon

Todd Quinn is the project coordinator of South Dakota's virtual reference project, Ask the Librarians - LIVE. In October 2002, he presented a poster session at University of Minnesota-Twin Cities and MINITEX's symposium, "Changing Face of Reference." Although he has been working on this project since August 2001 his other professional interest include instruction and preservation. Currently, he is the Instruction/Reference Librarian at Dakota State University and holds the rank of Assistant Professor. He earned his MLIS from the University of Pittsburgh.

Lea Briggs Simon is Reference Services Coordinator and an Instructor at Northern State University. She is also a site supervisor for the Ask the Librarians - LIVE service. She recently presented poster sessions on virtual reference at the University of Minnesota-Twin Cities and MINITEX's symposium, "Changing Face of Reference," and on information literacy at ACRL's 11th National Conference. In addition to virtual reference, information literacy is also of great interest to Lea and she is an instructor of a newly created credit-bearing class, LIBM155 On-line Information Literacy. She earned her MLS from Emporia State University.

### **Abstract**

In September 2002, the libraries at Dakota State University, Northern State University and South Dakota State University (the Group) began offering a cooperative, virtual reference service to their communities. The prospect of providing patrons with another access point to the library for reference and/or other informational needs excited us. One librarian's idea was contagious and the Group thought it was an innovative and creative service worth the time and effort. This was a cutting-edge service; we wanted to offer it immediately. Dramatic increases in the distance education populations of the universities required a response, even though we have provided email and telephone reference for years and will continue to do so. Many of our students were familiar with chat technology; the virtual service was the latest trend in reference, and we wanted to be a part of it. Thus, we built it, but not many came.

In two months, we went through the steps of convincing and recruiting librarians, forming a collaborative group and writing an LSTA grant. But we never thought of surveying our population first to gauge their interest in/need for the service. Having no specific information affected our public relations and advertising, which in turn affected the number of questions we received.

Offering the service provided us with expected and unexpected experiences. This presentation will discuss the challenges and opportunities we faced and unanticipated results and events. Out of these experiences, we offer practical advice and recommendations to benefit others, particularly those considering a cooperative venture.

## **The Learning Delivery System: New Twists for Design, Development, and Delivery**

Darla Runyon and Roger Von Holzen

Darla Runyon is the Assistant Director and Curriculum Design Specialist for the Center for Information Technology in Education at Northwest Missouri State University. She received her Masters in Education from Colorado State University and is working on a PhD in instructional technology at the University of Missouri--Columbia. Darla has presented at numerous national conferences and has given training and consulting sessions on instructional technology as well. Currently, Darla works in the CITE office at Northwest and assists faculty in the design, development, and delivery of instructional technology for online and campus-based courses.

Dr. Roger Von Holzen is the director of the Center for Information Technology in Education at Northwest Missouri State University. Since completing his doctorate in instructional technology from Texas Tech University in 1993, Von Holzen has been extensively involved in the various technology initiatives undertaken by the university, leading to his appointment as the director of the campus' faculty technology center in the spring of 1999.

### **Abstract**

For the past few years, educators have been designing, developing, and delivering online courses and programs. During this time, it has often been realized by faculty that many of the same pedagogies that they find to be successful for online learning, work just as well in other learning delivery systems. This time, though, change has presented us with some new twists for our learning delivery systems.

Learning delivery systems range from campus-based courses through online, web-enhanced, instructional television, and site-based courses. All of these systems are ways that educators have used to deliver critical content and concepts to their students. They all have aspects about them that work well in specific situations, with certain critical content and concepts, and with particular types of students.

So, how can we take these learning delivery systems and tangle new twists around them? One of the latest twists that online learning has taught us is that a supplemental course web site can be useful for integration with any of the learning delivery systems. By incorporating such a site, the scheduling of courses becomes more flexible, thereby allowing institutions to more efficiently utilize classrooms and reduce costs. By shifting some of the time spent covering critical content in class to the course web site and making the student responsible for the critical content, this frees up time spent in class.

Another twist is the flexibility to develop an entire program with a combination of learning delivery systems, which have been labeled as hybrid or blended programs. The foundation for these learning delivery systems is the course web site and it houses the critical content for the course. Some courses may be offered online while other courses may require students to meet on campus periodically. The mix would be due to the nature of the critical concepts.

Perhaps the most innovative twist of all is that of the course web site which serves as the basis for a myriad of learners. This course site is centered around one faculty member and can be the learning hub for online, campus-based, graduate, and/or undergraduate students. This design provides a unique way by which an instructor can easily manage students and courses through the use of a group management feature, reducing the amount of time spent developing and maintaining individual course sites.

This session will provide a discussion of the new mix of learning delivery systems and how these systems are being designed to meet the needs of both the student and the instructor. Specific course examples will be demonstrated along with course management techniques that can improve the efficiency of the instructor utilizing mixed learning systems will be investigated.

## Collecting for Quality-Electronic Journal Archives in the 21st Century

Ellen Safley and Carolyn Henebry

Ellen Safley is the Associate Library Director for Public Services at the University of Texas at Dallas. Her academic interests include anthropology and economics. Ellen's creative talents are displayed in her paintings and landscaping endeavors. Having served on many committees, Ellen is active in ALA and has played a defining role in Texshare.

Carolyn Henebry is the Associate Library Director for Administration at the University of Texas at Dallas. Having held various positions at public, school, special, and academic libraries the common denominator is working with people and helping patrons and staff interact effectively. Children's literature and in particular, informational materials for young people has claimed an important part of her time in the past ten years.

### Abstract

Given a mandate to migrate to an electronic format whenever possible, to reduce the duplication of paper, microform, and electronic copies of a title, and to limit the growth of the print journal resources, the UT-Dallas Libraries plunged into a risky experiment: To create a 21<sup>st</sup> century journals collection—electronic with a minimum of print.

In 2001, at the annual North American Serials Interest Group (NASIG) conference, we presented an overview of the nature of the archives encountered in creating a digital periodical collection. In addition to finding problems with the quality of e-journal archives including missing pages from articles, missing articles from issues, missing volumes and years, poor quality images, and issues with the presence and absence of color, we encountered a range of access problems. Two years after our original analysis, collection decisions have been made based on the premise that the electronic version is now the permanent copy of the journal. As part of the procedure in withdrawing or canceling print titles, we compared the print to the electronic versions of each journal. Decisions concerning retention/binding of printed journals with free online archives and the withdrawal of primary journal resources replaced by electronic archives are presented. Insight into the quality of the electronic archives available today through publisher web pages is compared to 2001.

## **Fighting Crime at Your Library with Web Cams**

Barton Spencer

Barton Spencer received his MLS from the University of North Texas. After serving as a trainer for Innovative Interfaces he returned to his alma mater, the University of Southern Mississippi, to become an Information Services Librarian at Cook Library. Spencer now serves as Head of the Electronic Resources Department, spearheading much of the library's acquisition and implementation of technology. In the past year Spencer conducted two presentations at the Library and Information Technology Association (LITA) conference in Houston and one at the Mississippi Library Association conference. Topics covered were notebook computer checkout, digital image archiving, and video production.

### **Abstract**

No institution or business can consider itself immune to the threat of crime. Where there are people, there is the potential for illegal behavior. When you mix the elements of a building where valuable materials are housed, staff who are trusting, and some non-staff who have 24-hour access, the potential for crime takes a sharp upward turn.

In the case of Cook Library, University of Southern Mississippi, our most immediate problem has been custodians who have access to the building hours before the librarians and staff arrive. Sometimes the library staff noted the loss of simple pocket change from their desk drawers, but in other cases large videotape players had disappeared.

A relatively small investment can help stem larger losses and discourage future criminal activity. By utilizing a combination of a simple PC, a \$40 web camera, and a \$35 software package, one can create an extremely effective surveillance tool that will monitor areas of the library that are most vulnerable. For example, if there is a need to watch a theft-prone office overnight, or to monitor the outdoor book drop through a library window, this "spy cam" setup is all that you need.

Several elements of today's technology make this a relatively easy operation. First of all, most simple web cameras are inexpensive, they often do not need to be focused or have their exposure settings adjusted, and most come with a USB connection that is compatible with Windows 2000, Windows XP, and some older versions of Windows as well. There is no real need for an especially robust computer either. Most of the work that I have done was accomplished with a computer that had a 633 MHz Celeron processor and 128 MB of RAM.

Several software packages are available to help one perform surveillance, but there are some important features that should be included. For example, one needs to be able to schedule times that the camera will be active or not active. Most software packages used for this purpose are capable of changing the way they record video when motion is detected by the camera. For example, I normally want to shoot more frames of video per second, in order to gain better quality video, while someone is actually moving in front of the camera. Some software packages are able to send out pictures that one may view via email or on a web server. Another handy feature is time stamping, so one can verify when different events occurred.

In my own experience I have had the camera hidden in an old box (with a strategically-placed hole in the side) and also had the camera out in the open. In both situations I have caught thieves in action, and they did not appear the least bit suspicious that they were being watched. The resulting video is without peer when it comes to securing an arrest of an individual.

## Web-based Assessment of Collaborative Library Services to Distance Learners

Marcia Stockham and Beth Turtle

Marcia Stockham is an assistant professor and education librarian at Kansas State University Hale Library. She received her MLS in Library Science from the University of Missouri-Columbia and served as the System Administrator and Reference Librarian at Columbia College in Columbia, Missouri before joining KSU in 2001. She currently serves on task forces for distance education library services and a state-wide virtual reference project.

Beth Turtle is an associate professor and science librarian at Hale Library, Kansas State University. Prior to joining KSU in 1998, she was the senior librarian at DPRA, Incorporated, an environmental consulting firm. She received her MLS in Library Science and Information Management from Emporia State University. She currently serves on task forces for distance education library services and a state-wide virtual reference project.

### Abstract

In contrast to many large academic libraries, Kansas State University does not have a defined distance librarian position. Instead, the Library Services Project Team, (LSP) composed of librarians and representatives from the Division of Continuing Education (DCE), was formed to review services provided by both entities. The goal of the LSP was to implement changes that would provide equitable library services to the distance population using the *ACRL Guidelines for Distance Learning Library Services*, including new informative web pages, electronic reserves, remote authentication for electronic resources, and virtual reference. Because it is critical in times of budget cuts to know whether current services are being used, and what future plans should be made, two librarians on the team developed a web-based survey targeted at distance faculty and students. The survey was sent via email to students and faculty currently enrolled or teaching a distance course. The objectives of the survey were to learn if students and faculty were aware of the library services, if they used the services, where they most often got their information, and what additional services were needed to promote learning.

Nearly half of the students and seventeen percent of the faculty respondents were not aware of the services currently provided by the library. Survey results indicated that a variety of sources are used by distance students for research including teacher resources, textbooks, purchased books, employers or other libraries, local school resources and, most often, the World Wide Web. Of the services provided, about twenty-five percent of the students indicated they had used off-campus access to electronic journals and databases to which the library subscribes. When ranking the three most useful services, nearly half ranked off-campus access to electronic resources as the most useful, followed by electronic full-text journal articles and the distance learning web page. Most responses to open-ended questions indicated that students were not aware of services and they wanted better instructions or support for accessing the resources. Overall, they indicated a need for better communication about the services either through orientation, enrollment packets or directly from instructors. The response rate for the student survey was twelve percent (320 completed surveys), so the numbers do not represent a majority



of those to whom the survey was sent (2,661). However, there was much valuable information obtained, and the authors view the survey itself as a way to promote the services available. Immediate recommendations to the LSP are to develop a marketing/PR plan to make students aware of the services, post FAQ addressing questions from the surveys on the distance web page, and target the faculty with information to disseminate to their students at the point of need. Long-term recommendations include consolidating services now offered through DCE and the library with library staff and administration taking the primary responsibility for implementation.

## **Implementing Electronic Reserves: Tools, Teamwork and Copyright**

Suzanne Aras Vesely and Rebecca Lefebvre

Suzanne Araas Vesely is Copyright/Reference Librarian and Head of the Copyright and Intellectual Property Center for Fort Hays State University. Vesely has given approximately 20 workshops and 20 mini-presentations on copyright and intellectual property, including a consultancy at Friends University in January 2003. She has also recently had an entry, "Computer Ethics," accepted for the Salem Press reference book, *Ethics*. She received a Ph.D. in literature from the University of Iowa in 1996, and her M.L.I.S. at the University of Iowa in 1999. She has chaired two sessions on Women as agents of the Enlightenment at Modern Language Association conferences.

Rebecca Lefebvre has been Coordinator of the Circulation and Reserve Department for Forsyth Library, Fort Hays State University for two years. Lefebvre has presented four informational sessions on Electronic Reserve for faculty and staff at Fort Hays State University. She also worked as Assistant to the Circulation Department Supervisor at Fort Hays State University for two years. Prior to employment at Fort Hays State University, she worked as a Licensed Practical Nurse.

### **Abstract**

At Fort Hays State University in Hays, Kansas, the authors of this article collaborate to ensure an effective Electronic Reserve program. Rebecca Lefebvre is the head of Circulation/Reserve, and Suzanne Araas Vesely is the Copyright/Reference Librarian. We discuss best practices and give practical tips for two facets of electronic reserve: electronic reserve of books and articles and video on demand.

### **Electronic Reserve<sup>1</sup>**

#### **Why Electronic Reserve?**

On any campus, virtual college students face the challenge of getting what they need in time. At Fort Hays State University, off-campus students usually order articles or other resources through our library outreach program and wait for them to arrive in the mail. Despite a strong commitment to timely user service on the part of Forsyth Library staff, this process tends to take about two weeks unless we own the item. An expensive, time-consuming, and sometime impractical option is commuting to campus. Electronic reserve is user-friendly, reduces cost, increases timeliness and convenience, and provides quick access to materials.

Since the instructor does not have to designate loan limits with electronic reserve, students have no fines or fees. Using electronic reserve also reduces waiting time from as much as two weeks. All of the students in the class can access the material simultaneously, and originals are secure from damage (removed or marked pages) or from loss.

## Communicating with Faculty for E-reserve Success

We offer as wide a variety of reserve possibilities as we can to instructors: articles, book chapters, tests, class notes and syllabi, and more. We avoid long downloads by breaking up longer articles into 20 page segments. An individual instructor has a web page (figure 1):

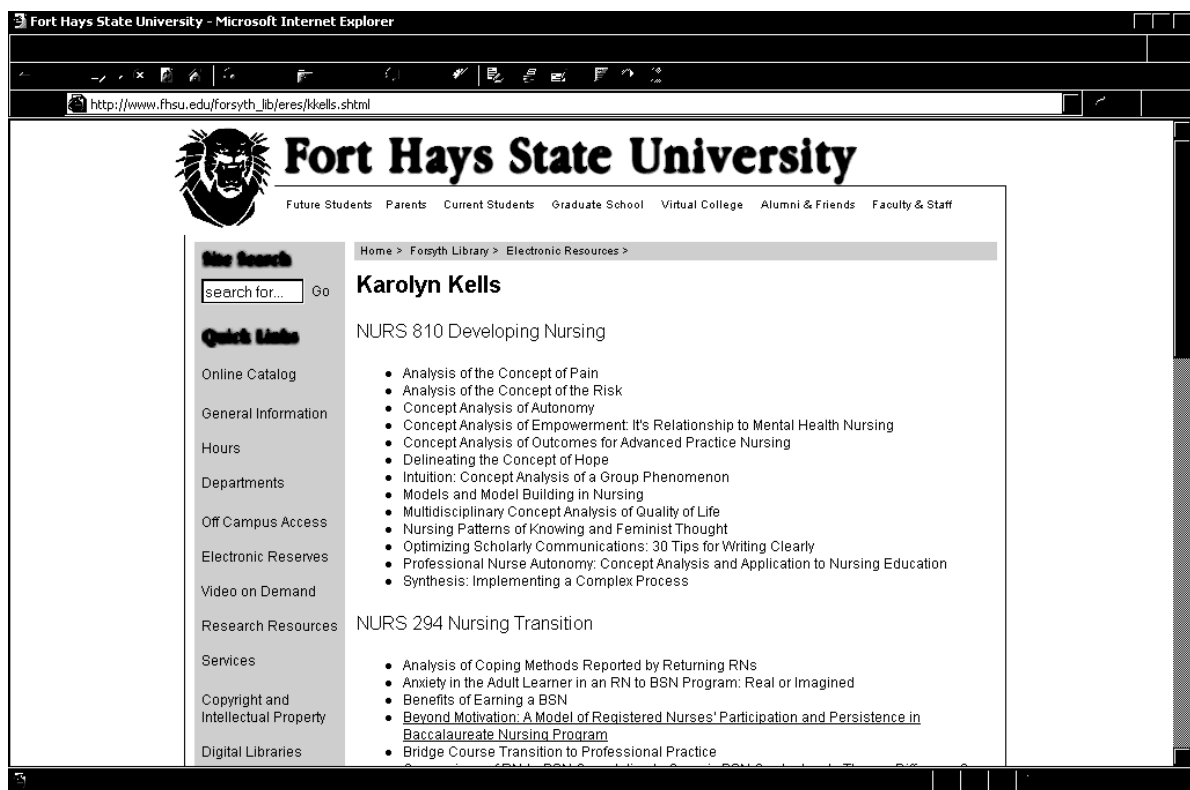


Fig. 1. E-reserve Page for a Nursing Professor at Fort Hays State University. n.d, 2002. Forsyth Library, Fort Hays State University. 29 July, 2003.

One crucial factor in getting this rich listing of articles online for distance students is how we communicate with faculty. Suzanne Vesely, the Copyright /Reference Librarian, helps to ensure that any correspondence with faculty is clear and has a collaborative tone that will be effective in getting the desired outcome of faculty cooperation. Rebecca Lefebvre adds an extra mile of service, sending this note:

Could you take a few minutes and let me know how pleased or displeased you were with Electronic Reserves this summer? Since this was our trial period we are interested in what we could improve on to make it more user friendly.

Did you get any feedback from any of your students? Positive or negative?  
Any information you provide will help us to provide better service for the fall semester.

“Most of the students that used it were amazed,” replied one faculty member, who also offered the helpful feedback that students needed to understand clearly the difference between electronic reserve and the databases (Kells, 2003).

## **Selecting Software and Equipment for E-reserve**

### **Software**

In considering how to select software and equipment, we looked for user-friendliness and compatibility with our existing programs.<sup>2</sup> The software that we were using, Imageserver, was user-unfriendly and it was a nightmare of virtual infestation. The program would repeatedly kick us out as we attempted to use it. After several cumbersome experiments, we settled on Paperport.

For the solution, we had to “look outside the box,” or rather, *inside* the box: our library director, John Ross, suggested that there might be some user-friendly software accompanying the scanner we had purchased, which proved to be the case. With Paperport, it took us 70 hours to scan, edit, convert, view and upload all of our materials; this does not include time spent on the web page design and folder setup. Now it takes about 10-20 minutes to add an item, and we have student help. To start where we ended would save time and money for anyone who plans to set up an E-reserve service.

The Paperport path was easier to implement when making additions, subtractions, and modifications. Before Paperport, e-reserve was at the mercy of the work schedules of the webmaster and Computing Center. Most of the work is now done in-house by our Systems Administrator, Heath Bogart, and we have items on E-reserve within one to three days.

### **Equipment**

Our initial scanner was a good but slow Hewlett Packard Scan Jet 4200C. We updated to a Kodak i60 Scanner for a reasonable \$2500, decreasing scan time from one page a minute to one page every 1.5 seconds, also adding capability for scanning double-sided originals and multiple-page articles without needing to feed them in manually. The scanning time definitely improved over the previous model.

## **Permission Service**

Forsyth Library Circulation and Reserve, in collaboration with the Copyright and Intellectual Property Center, offers our faculty a unique high-touch service in conjunction with an efficient electronic reserve: if the faculty provide us with the title page and publication information, we do the paperwork for them to get permission for using reproductions of copyright-protected works, using a dedicated group of work-study students. We follow up our contact with faculty and with the publishers to make certain that the process is smooth.

## Video on Demand

Forsyth Library has also started to implement Video on Demand as another means to provide easier access to materials required by instructors for their classes. Kevin Staab, personal interview, 5 August, 2003, supplied the technical information for video on demand. Staab is the Electronics Technician for CTELT (Center for Teaching and Learning Technology) at Fort Hays State University. Our reserve department has enlisted the assistance of the Center for Teaching Excellence and Learning Technology (CTELT) for copying videos that the library owns. The library selected and purchased the HELIX Producer Plus software for encoding the videos specifically for the Video on Demand program because it worked well with other formats, not just with RealOne player, which CTELT uses. CTELT encodes the videos in real time and then downloads them to the server using CISCO, which offers ease of use and compatibility. The average download time for a one-hour video to the server is five minutes or less. The videos are sized to 256K and encoded in real time to preserve storage space on the server while allowing adequate viewing quality. The lower resolution also allows shorter download time for the students or instructors accessing the material: a one-hour video downloads to a patron in 5 minutes. The FHSU Webmaster links and creates the passwords for the videos on the Forsyth Library website.

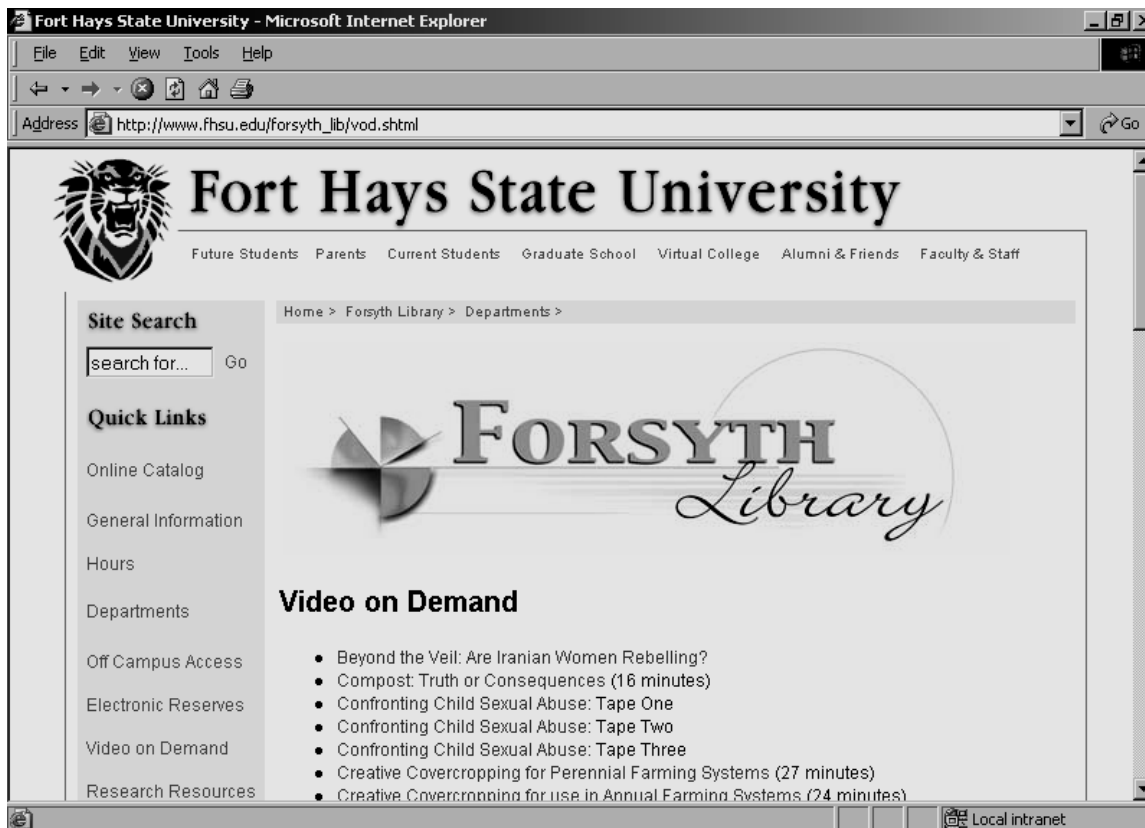


Figure 2: Video on Demand page. n.d., 2002. Forsyth Library, Fort Hays State University. 5 August 2003.

## Copyright Issues in a Digital Setting<sup>3</sup>

Litigation surrounding digital use of copyright-protected materials has made it a priority for libraries to be proactive in complying with copyright law. In the past, the burden of copyright protection was on the *owners*: they had to register their work with the U.S. Copyright Office. Since the Digital Millennium Copyright Act of 1998 became part of U.S. Copyright law, however, all materials that are copyrightable by law are automatically copyright-protected. This puts the burden of copyright law on the *user*, whether the user is an individual or a library.

Forsyth Library is responding to this challenge by educating faculty and staff at Fort Hays State University and surrounding communities about safe use of copyright protected materials and about the new laws. We have also provided services that help faculty to comply with the law in a manner that will minimize litigation while maximizing scholarly use, such as our permissions service and the availability of a copyright specialist to answer questions quickly as they arise. Our copyright web site provides easy means for constituents to write to their legislators about the need for constitutional balance between original owners, public domain which renews common cultural property, and users.

### Educating the Community

Suzanne Araas Vesely is available at Fort Hays and elsewhere for presentations on Copyright, Intellectual Property, and related issues. As head of Forsyth Library's Copyright and Intellectual Property Center, she has developed a web page on Copyright and Intellectual Property with both original materials and many helpful links. It can be visited at: [http://www.fhsu.edu/forsyth\\_lib/copyright/](http://www.fhsu.edu/forsyth_lib/copyright/). The site includes a page on copyright basics such as 1976 copyright law, fair use, and adjustments made in U.S. Copyright law that updates it for the digital age: the Digital Millennium Copyright Act of 1998, the Sonny Bono Extension Act of 1998, and the TEACH act of 2002, now all part of Title 17 (U.S. Copyright Law). There are also many links to university, government and commercial sites, as well as regular updates on legislation and links to public officials. Fair Use principles, an exception to 1976 U.S. Copyright law, and The TEACH Act of 2002 are both relevant to distance education.

### Fair Use and the Digital Environment

Copyright Law has "exceptions" to its rules under which someone who does not own the work may have the right to copy a work, and "fair use" is the broadest of these exceptions. "Fair use," section 107 of Title 17, the U.S. Copyright Law of 1976, is deliberately vague, covering a large number of possible situations that legislators cannot readily predict. What this means is that in many cases, there are no simple answers to questions about applying Fair Use to a copyrighted item, and it is helpful to have a fulltime copyright specialist keeping reserve and distance users current on the law.

There are four principles of fair use, to be considered together as a whole when determining if a use is fair or not: 1. *Purpose*: The purpose is educational or nonprofit and is not commercial in nature, even if it is within a nonprofit setting. 2. *Nature*: Carefully consider the kind of work that is being copied. Taking limited material from a factual textbook (but not a disposable workbook)

is more likely to be fair use than copying creative audiovisual software. 3. *Amount*: The amount of the work being copied is small. The Conference on Fair Use of 1996 (CONFU), an ad hoc committee comprised of educators, copyright owners, librarians and other interested parties, created some “safe harbor” guidelines for many copying situations, but the guidelines are not law and may be overly conservative for higher education. What is significant to digital applications is that CONFU was unable to reach an agreement about what would be fair use in a digital setting. 4. *Market*: The use should not hurt the copyright owner’s ability to sell the item. Much litigation, especially with regard to digital use, centers on this principle.

### **The TEACH Act**

“TEACH” is an acronym for “Technology, Education and Copyright Harmonization.” According to the Bill Summary for the 107<sup>th</sup> Congress, TEACH amends Chapter 1 of Title 17, Federal copyright law, “to extend the exemption from infringement liability for instructional broadcasting to digital distance learning or distance education.” But there are stringent guidelines for applying this provision of the law.

Amended federal copyright law now allows non-profit educational organizations (nobody else) to transmit complete performances of non-dramatic musical or literary works, except for poems, music other than operas, musicals and story-telling music videos. It also allows transmitting “reasonable and limited portions” of any other performance, including films, videos, and dramatic musical works. An institute of learning may transmit displays of any work or still images in amounts comparable to face-to-face displays. Not allowed are, of course, items illegally acquired, and there is no allowance for claiming ignorance. One should also not make an e-book of a textbook or create course packs of articles without permission.

Unlike Fair Use, TEACH provisions are very specific, and there are many conditions an institution must meet before it complies with the law. Some sources count as many as 23 regulations for using these provisions (Harper, 2002). At the very least, successful compliance requires an effort from all personnel in non-profit institutions. Table 1 shows our breakdown of the responsibilities of the Administrative, Faculty and Staff sectors in a university.

Table 1: TEACH Act Guidelines for Administrators, Educators and Tech Support.

<b>ADMINISTRATION</b>	<ul style="list-style-type: none"> <li>○ <b>Act under nonprofit status only</b></li> <li>○ <b>Clear policies in place</b></li> <li>○ <b>Accurate information about copyright available</b></li> </ul>
<b>FACULTY</b>	<ul style="list-style-type: none"> <li>○ <b>Compliance with the law: set good example</b></li> <li>○ <b>Make sure that students use copyright protected materials properly (copying, plagiarism)</b></li> <li>○ <b>Limit transmission to enrolled students</b></li> </ul>
<b>TECH SUPPORT</b>	<ul style="list-style-type: none"> <li>○ <b>Limit transmission to enrolled students</b></li> <li>○ <b>Avoid interfering with copyright protections that are in place (watermarks, etc.: follow ALA guidelines)</b></li> <li>○ <b>Control storage</b></li> <li>○ <b>Control downloading</b></li> <li>○ <b>Temporary retention of the copyright-protected material (one semester)</b></li> </ul>

### **Conclusion**

Distance education provides a unique opportunity for greater involvement of the library with administrators, faculty and technical staff. We believe that Forsyth Library at Fort Hays State University has welcomed the challenge and has begun to move forward with a creative use of available staff and resources.



**Appendix A**

Sample permission letter.

All copyright requests are sent on FHSU Letterhead Stationary.

**Materials Permission Department**

**Date**

Dear Sir or Ms.:

The material cited below is required reading for a course at Fort Hays State University. We are requesting permission to place the material provided by the instructor at the reserve desk in print format and in the electronic reserve system in digital format. On-line access is limited to Fort Hays State University students currently enrolled in the course and can only be accessed by entering a password that has been assigned to the instructor. A copyright compliance statement will be attached to each document in the reserve or electronic reserve system. The material is for semester use and will be removed after each term. This material is intended for academic use only and will not be duplicated or sold.

**Book or Journal Title:**

**Chapter or Article Title:**

**Author or Editor:**

**Material Format (circle one):** manuscript, book, notebook, thesis, article, video, CD-ROM, Diskette, DVD, microfilm, journal

**ISBN /ISSN Number:    Year:    Edition:    Volume:    Call #:**

**Number:                      Total # of Pages:    Number of copies:**

**Course Name & Number:**

**Instructor's Name:**

I have enclosed a self-addressed stamped envelope for your convenience in replying to this request.

Sincerely yours,

(Instructor's name, title, department)

PERMISSION GRANTED \_\_\_\_\_ FEES \$ \_\_\_\_\_ PERMISSION DENIED

\_\_\_\_\_ BY \_\_\_\_\_

TITLE \_\_\_\_\_

DATE \_\_\_\_\_ COMMENTS:

## Notes

<sup>1</sup>Suggested readings on electronic reserve and general distance education issues include: “Issues and Innovations in Electronic Reserves,” ARL [*Caveat*: This site was created before the DMCA and TEACH legislation was passed. Many of the models in this finding aid are still not password protected.] ARL also provides an online forum on electronic reserve: <arl-reserve@arl.org>. Also see Laura Gasaway, 109-134 and U.S. Copyright Office Copyright Office Reports.

<sup>2</sup>This section on software is based on the interview with Bogart, the Fort Hays State University Systems Administrator for Forsyth Library.

<sup>3</sup>The Fort Hays State University Copyright and Intellectual Property web site offers many links that form some of the basis of this part of the presentation. Most recommended are Harper 1997 and U.S. Patent and Trade Office. Print resources of importance include: Crews, Hoffman, Isenberg, and Minow and Lipinski.

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## **Map the Way to the Destination: Quality Service**

Vicki Wainscott and Lisa Jennings

Vicki Wainscott is Head Librarian for Access Services in Owens Library at Northwest Missouri State University. She has over 11 years of experience in Access Services at two medium-sized academic institutions. In addition to coordinating circulation, reserves, interlibrary loan, and teaching resources, she works with the Information Services team to provide reference service and library instruction.

Lisa Jennings is a Technical Services Assistant and the former Circulation Generalist in Owens Library at Northwest Missouri State University. She has 4 years of experience at two medium-sized academic institutions. She spent the last three years creating and conducting training for up to 20 student assistants a trimester in the areas of circulation, reserve and shelving.

### **Abstract**

Owens Library offers a one-stop service point for all patrons. The former circulation/reserves desk is now the Library Services Desk. Student employees at the Library Services Desk must be able to do the traditional tasks of circulation, reserves, shelving, and additionally make referrals to other areas of the library. Training is the key to providing quality service in all of these areas.

There are six stops on the map from taking a student employee on-board to having them reach the final destination of quality service. The first stop is preparing the trainee by providing them with an orientation and showing them basic competency expectations for their job. Stop two is hands-on training conducted by the circulation/reserve staff. Stop two uses checklists to ensure that the supervisor presents step-by-step processes and information for each task before moving on to the next stop. Stop three is on-the-job practice of those things learned in stop two. Stop three allows the trainee to begin taking responsibility for their job and allows the supervisor to offer advice, suggestions, or tips on how to improve, and, if necessary do some of the complicated steps for the trainee the first few times. Review of the processes and procedures is stop four. Stop five is performance tryout. Students are now left alone at the Library Services Desk with a supervisor in a nearby office. Stop six is follow-up on training. The supervisor will have students check out several types of materials, answer different referral questions and have the students write down 5 things they know really well, 5 things with which they need assistance, and 5 things with which the patrons need assistance. A cycle of review and hands-on training completes our trip. While this process is time consuming, the initial investment of time spent on training makes for quality service at the Library Service Desk.

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## **E-Collaboration Between Reference and Interlibrary Loan**

Cherié L. Weible and M. Kathleen Kern

Cherié L. Weible is the Assistant Librarian for the Information Resource Retrieval Center at the University of Illinois at Urbana-Champaign Library (UIUC). Her publications and research are in the areas of electronic information supply and ILL best practices. She has recently presented at the ILL Pre-Conference at ALA. She holds a M.S. in LIS from UIUC and a M.A. in history from Pittsburg State University at Pittsburg, Kansas.

M. Kathleen Kern is an Assistant Reference Librarian at the Central Reference Library of the University of Illinois at Urbana-Champaign. She co-manages the library's two and a half year old chat reference service. Her primary areas of research are management of chat reference and evaluation of reference services. She promotes the Reference Desk staff as a resource for the rest of the Library as well as a resource for patrons and seeks innovative and sensible ways to collaborate with other library units.

### **Abstract**

In many libraries, Interlibrary Loan was once a function of the Reference Department. Reference staff verified citations, located lenders, and placed requests for patrons. As Interlibrary Loan became a more highly used and specialized function, it grew to become a separate department. Automation of ILL also affected involvement of Reference in ILL; Reference was not needed to check print sources to verify citations and locate potential suppliers.

ILL management software has created the opportunity for new models of collaboration between the Reference Service and ILL. ILLiad allows staff in multiple locations to work on requests without the need to keep track of paper requests. Staff need not be physically located in the ILL office.

Our institution ran a pilot project that utilized reference staff expertise to verify citations and locate alternate vendors for requests determined by the ILL office to require "extensive searching." We found that this arrangement benefited both departments in several ways. In addition, this experiment required no additional staff as Reference staff did the searching during desk duty, as a way to fill the lulls between patrons. The ILLiad software made it easy for work on transactions to be tracked and picked up by different staff members and allowed work on a transaction to be suspended so that Reference could assist in-person patrons.

### **Historical Relationship**

The IRRC, originally known as the Illinois Research and Reference Center, was one of many located across the state of Illinois. State funded and strategically located in University settings around the state, these centers provided in-depth reference work in conjunction with the interlibrary loan departments of these institutions. Reference librarians were permanently staffed in the ILL Department to provide extensive searching and verification of requests for materials

held at the UIUC library. Reduced funding from the state in the 1970's and 1980's spelled the demise for the IRRC units in Illinois. The University of Illinois at Urbana-Champaign (UIUC) reorganized the department that presently serves as the Interlibrary Loan and Borrowing Office for UIUC. The acronym IRRC now stands for Information Resource Retrieval Center, which more clearly reflects the present functions of the unit.

### **Motivation / Why Now?**

During the approximately 20 years since the demise of the original IRRC, there have been several times that Reference and ILL have attempted collaboration. These collaborations have involved one or two experienced reference librarians searching requests for the ILL Department. The collaborations never lasted long for the following reasons. First, reference librarians were not consistently able to leave the reference desk in order to pick up and deliver the ILL requests. Second, paper requests were often misplaced before they could be returned to the ILL Department. Last, it was not cost effective to have reference librarians conduct ILL searches that lower salaried staff can complete.

The advent in the last few years of electronic ILL managers, such as OCLC's ILLiad, RLG's ILL manager, and Fretwell Downing's VDX, have freed ILL staff from the tyranny of paper. Even when requests are printed, ILLiad keeps an electronic record of every incoming and outbound request, so requests cannot become lost. ILLiad also allows staff to work on requests from any computer on which the software is installed. Thus, requests are portable and may be passed from person to person without any paper printouts. This paperless portability of requests opens new possibilities of collaboration between the ILL Department and the Reference Department. Reference librarians are not hindered by physically transporting request forms from the ILL office and back and the ILL office (and the patron) are not inconvenienced by lost requests.

The newest collaboration between ILL and Reference is supported by the computing environment, but was not occasioned by it. The generation of this idea came from the budget situation of the UIUC Library and the exhortation to find new ways to do our work. Since the ILL Department and the Central Reference Library are part of the same operating division within the library, it was known that the ILL Borrowing unit was experiencing overload due to reduced staff and a more than 50 percent increase in borrowing volume over last decade. Our faculty and graduate students are research-hungry and in FY 2002 the borrowing volume reached a record 37,000 requests. As the Central Public Services division brainstormed ways to share staff, distribute workloads, or face reducing services, the idea of Reference picking up some searching of request for ILL began to coalesce. Although collaboration between reference and an access services department is not necessarily a new idea at our library or others, the specific use of an ILL manager to develop an electronic collaboration seemed to be the approach to best meet our desired goals.

### **Current Collaboration / Pilot Project**

The collaboration idea started informally, with one librarian from Reference approaching one librarian from ILL to ask about the feasibility and desirability of Reference searching for the ILL Department. The thought was that the staff at the Reference and Information Desks could search

for ILL requests during idle times at the desks. These idle times are undesirable, but unavoidable, as patron traffic is inconsistent from hour to hour, day to day, and week to week. Sometimes the desk has a line of patrons and at other times it is quiet.

It was determined that this collaboration was now feasible given the use of an ILL manager and that with budget constraints this was desirable. A list of potential benefits to both departments was developed to promote the venture to other staff and faculty in the units (See Table 1). Benefits to the library and patrons were also considered (See Table 2). Since the idea was presented as a pilot, and did not require additional staff, equipment, or money, both units approved the collaboration. Without the assistance of the reference staff, the increased volume of requests in conjunction with the reduced student budget would have made it nearly impossible to keep up with the workload in a reasonable amount of time.

Table 1: Possible Benefits of E-collaboration for the ILL and Reference Departments

<b>Benefits to ILL</b>	<b>Benefits to Reference</b>
*Increase in skilled staff available to search for requested items.	*Increase advanced searching skills by increasing use of these skills.
*Decrease workload of staff in unit.	*Dispel the idea that the Desk was over-staffed by reducing idle-time.

Table 2: Possible Benefits of E-collaboration for the Library and Patrons

<b>Benefits to Library</b>	<b>Benefits to Patrons</b>
*Maximize use of staff; increase efficiencies	*Decrease time from request to response
*Better patron perception of Library as a whole due to better ILL response time	*More successful fill-rate

### Parameters

Since we started this collaboration as a pilot project, we decided to limit the number of computers with the software and the number of reference staff that we trained. The UIUC Library employs many Library Science graduate students as graduate assistants. Eleven of them work at the Information and Reference Desks in the main reference library. These graduate assistants and the two references librarians who train and supervise them were selected for participation in the pilot. The ILLiad software was installed on two of the three computers at the Information Desk.

The Interlibrary Borrowing office receives approximately 18,000 requests during the spring semester. The requests are submitted by patrons through an online form and move through various queues within ILLiad as work is performed on the requests by ILL staff. Since these queues are customizable, it was simple to set up a workflow that included a way to tag requests that needed to be worked on by the reference staff. We decided to limit reference's involvement in the pilot project phase to searching only those requests that were deemed to require "extensive searching". The ILL graduate students normally handle these requests in an attempt to determine if anything else can be done before canceling or providing a referral to the patron. Occasionally,



additional lenders can be located, or another clue is discovered to locate a possible means of tracking down the desired research material for use by the patron. By including the reference staff in reviewing these requests, it allowed more staff with advanced searching skills to work with the requests, while leaving the easier searches for their undergraduate staff. The requests that were destined to be searched by reference staff were put into a queue titled "Info Desk work to do" to clearly delimit work for the Reference Department. As reference staff finished working on requests, they placed them in the "Info Desk work completed" queue for further action by the ILL staff.

To avoid overwhelming Reference staff, particularly during the pilot phase, we set a limit of ten requests in the "Info Desk work to do" queue. If the reference staff were unable to work on requests, nothing new would be put in the queue. This relieved Reference of the possible pressure to place ILL searching as a priority over in-person patrons, since they never saw a large list of requests needing searching.

### **Training**

Reference staff regularly searches many of the same sources that the ILL staff searches. Most of the training required, therefore, was on use of the ILLiad software. Reference staff needed only add and delete notes, open their work queue and move requests to the completed queue so this training took only about 20 minutes. Other areas of training were conceptual and required training that is more continuous. In particular it was important for the Reference staff to learn both more creative ways of searching for leads and also when to determine that a search had reached a dead-end. Reference staff learned these things mainly through experience, as they grew accustomed to the ILL searching and through positive reinforcement from the Assistant ILL Librarian and the Assistant Reference Librarian who were managing the pilot project.

### **Results of the Pilot**

During the pilot phase (February-May, 2003) the reference desk handled 310 borrowing requests. This number is 43% of the 720 requests that needed "extensive searching" by the interlibrary borrowing staff during that time period. It is also almost equivalent to the number of requests that the borrowing department had outstanding at the end of the 2002 semester (370). The participation of the Reference Department enabled borrowing to have an empty request queue at the end of the spring semester.

These 310 requests also represent the most difficult 4% of the items requested. Among them were: Items with few (or no) suppliers; requests with erroneous or incomplete citations; unpublished reports, gray literature, and conference proceedings; materials in foreign languages; manuscript, archival, and "rare books" materials, items available in libraries not represented in WorldCat (mainly international), and items with complex bibliographic records. Relief of these 310 items from the workflow of ILL allowed the UIUC library to meet the goal of serving patrons in a timely manner.

Of the 310 requests searched by the Reference Department, ILL staff canceled 211 and 99 were requested for the patron. This means that for 1/3 of the requests searched by References, they

were able to locate another vendor. While 211 cancelled requests may seem on the surface to be bleak, this does not represent a failure rate of two-thirds. Within these 211 cancelled requests are items that Reference was able to locate within the print or electronic collections of the University of Illinois Library or within our local consortium (ILCSO). Some other successes amongst the cancelled requests were request where Reference was able to locate an author contact for an unpublished manuscript and a vendor for an independent film that was not circulating at any owning libraries. Of course, for many of the cancelled requests, no lending copy was able to be located in which case the only option for the patron would be travel to an owning library.

### **Extending the Collaboration**

Based on our successful pilot project, the collaboration between the Interlibrary Borrowing Office and the Reference Department will continue. To better support the collaboration, ILLiad is now available on two more staff terminals at our reference public service desks. Printing capabilities were added so that reference staff can print requests without patron information. (In case we do leave a printout at a public service desk!) Participation in the collaboration will remain limited to the graduate assistants and the two reference librarians who supervise the graduate assistants.

Graduate Assistants will continue to provide the primary support from reference to Interlibrary Borrowing. They staff the Information and Reference Desks during less busy times of the day; this type of searching is an excellent training tool and, as a transient staff, there will always be new graduate assistants to train; and, from an economic standpoint, they are paid less than the reference librarians are. Reference librarians also may have other work that can be done from the reference desk (such as searching the library's catalog as part of collection development) that is not available to the graduate assistants.

While we have limited our searching to those borrowing requests that require extensive searching, other libraries may find it more advantageous to search both borrowing and lending requests, or not to limit searching to just hard to find items. Our decisions were based on our needs, our volume, and the expertise of the available staff.

Other libraries that do not employ graduate assistants but wish to have this kind of collaboration between the ILL Department and the Reference Department may choose to have some or all of their reference librarians work on searching ILL requests. If paraprofessionals work at the reference desk, this could be an excellent way to train and increase searching skills for local and national catalogs and online databases.

### **Conclusion**

ILLiad provided us with an opportunity to reconnect the ILL Department and the Reference Department in a profitable collaboration. The place independent and paper-free nature of the ILL management software streamlined the workflow; budgetary concerns made it advisable; and the pilot phase confirmed lasting benefit for both participating library units.

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## **No Pain, Your Gain: Advice for Making Sound Ergonomic Decisions in Your Office**

Patricia Wyatt

Pat Wyatt is the Reference Specialist at Owens Library and been with the library for 18 years. She is a constant user of many of the software packages and devices that she will show at her poster session. She is also a sufferer of ergonomic injuries and has done extensive research on the topic.

### **Abstract**

Have you ever had to purchase furniture for your office? Have you ever had a work related injury? Have you ever lost your train of thought because you were overwhelmed with your workload?

Most of us have faced many new issues concerning our office setup, had or helped an office mate return to work after an injury or just gotten tired after a long day.

In this presentation, attendees will be given advice about choosing good office equipment, how to avoid or stop injuries due to overworking at the computer, and some suggestions for ways to take a break. Software suggestions, computer setup ideas and common sense will be highlighted.

## **Adapting to the Changing Needs of Today's Students: Utilizing Library and Other Information Materials in the Classroom**

Christy Zlatos

Christy Zlatos is Manager, Holland Library Reference Services and Microforms at Washington State University Libraries, Pullman, Washington and longtime Book Review Editor, *Journal of Academic Librarianship*. During spring semesters she teaches an English course called *Electronic Research and the Rhetoric of Information*. She is also the editor of *Coming of Age: A Case History of the Washington State University Libraries* (Haworth Press, 1999).

### **Abstract**

A student's university experience should encourage abstract thinking and a critical appraisal. *Electronic Research and the Rhetoric of Information*, a three-credit course in the Digital Media and Culture concentration of the English Department at Washington State University, enhances students' critical thinking abilities by exposing them to a broad range of information in a variety of formats and allowing time for them to polish their critical faculties in classroom discussions and written assignments. Future web designers, online game programmers, technical writers, MIS consultants, and librarians take this course, taught by an academic librarian. Class periods focus on an exploration of the changing nature of information throughout time and extensive discussions about finding and utilizing information from both the library and the web. Students read and criticize two textbooks, *Evolution of Wired Life: From the Alphabet to the Soul-Catcher Chip--How Information Technologies Change Our World* (Wiley, 1999) and *The Gutenberg Elegies: The Fate of Reading in the Electronic Age* (Faber and Faber, 1994). Learn about the changing nature, interests, and habits of today's students to discover how to better design and provide library services from the librarian who designed and taught the course.

### **Introduction**

This paper covers this author's experiences as a course developer and a user of library services, as well as the manager of an academic library reference desk in the humanities and social sciences. It details the course that the author both designed and taught, a three-credit course in the Digital Media and Culture concentration of the English Department (read, non-literature) at Washington State University, Pullman, Washington. The author has taught the course twice, for the first time Spring 2002 and then again during Spring 2003.

### **A Bit about Washington State University**

As the state's land grant university, Washington State University (WSU) is particularly strong in the sciences such as agriculture, engineering and veterinary science. WSU's main campus is located in Pullman. WSU is decentralized, a place where partnerships abound and interdisciplinary courses flourish. WSU recently placed among the top fifty public research universities in the nation according to U.S. News and World Report and the university regularly appears on nationwide lists of "most wired colleges" (*America's Best Colleges*, 2004).

Public services librarians at WSU have been particularly active in pursuing partnerships with teaching faculty, in the design of the library components of core courses, and in the development of a one-credit course to teach library research, University 300, a course that is taught both on campus, face-to-face, and as a distance degree course (Gibson and Scales).

### **The Electronic Media and Culture (EMC) Concentration at Washington State University, Pullman**

At WSU Pullman, English 356, Electronic Research and the Rhetoric of Information, grew out of a similar course in the General Studies concentration in Electronic Media and Culture (EMC) taught on the Vancouver campus. Although the concentration was listed officially under the General Studies curriculum at the beginning in Spring 2002, the English Department was successful in outmaneuvering the Murrow School of Communication to administer the program, later incorporating the EMC concentration (EMC became Digital Media and Culture (DMC) in Spring 2003) into what became the non-literature part of the department.

The English Department engaged a consultant from Iowa State University to help plan for and market the major during October 2001. The consultant consulted with administrators, faculty, and advisors to discuss recruitment of students into the major, the toolbox of skills that graduates need to take into the marketplace, and the market demands in the placement of students. She characterized the students in this major as boundary crossers, critical creators, creative critics, product-oriented, organized, motivated, and mature. She predicted that the major would attract smart, technically literate, energetic students who would abandon engineering or computer science for a more people-centered design environment. Graduates would have the skills to tailor information for audiences in a broad array of environments and become marketable in many venues including information-rich corporations, government, associations, publishers, computer companies, radio and television, law offices, architectural firms, and libraries (Burnett).

By and large, the consultant's predictions held true. English 356, Electronic Research and the Rhetoric of Information is an upper-level course in the English Department's DMC curriculum, taken by future web designers, online game programmers, technical writers, MIS consultants, and special librarians. Some of these students have changed from technical majors, which proved too difficult. Others sought the English Department's DMC concentration while refining their interest. The major attracts a steady number of technical writers.

### **Electronic Research and the Rhetoric of Information, Pullman Version**

When agreeing to teach English 356, a three-credit course, during spring semester 2002, the author meetings with the Department Chair and the Director of Writing Instruction proved very surprising. Both urged the author to focus on teaching students how to use and appreciate information: in their papers, on the web, and in their daily lives. Although both were very interested in placing their graduates into libraries as web designers and systems people, both emphasized that it didn't matter whether library materials were emphasized. Instead, authenticity, validity, and reliability with regard to the total universe of what's available through the web and in print throughout society should be the focus.

The author was a novice course developer and teacher and very aware of the inherent limitations. After dutifully scouring the course descriptions of the Vancouver version of English 356 that featured a purchased packet of Xeroxed readings, she decided to focus instead on conveying key concepts that would hold true throughout time including:

- ◆ An exploration of the epistemological, social, and cultural dynamics of information while pursuing definitions for the words: data, information, knowledge, wisdom, research, and rhetoric.
- ◆ An informed discussion of what being a literate person means.
- ◆ A short history of the emergence of memory, recorded thought and libraries, the moveable-type printing press, telecommunications, and information technology.
- ◆ A discussion of the concept of paradigm shifts coupled with an overview of the disciplines within the university and the research process for each.
- ◆ A discussion about the economics of electronic publishing and its impact on libraries.
- ◆ An exploration of what it means to read, what student research habits are like, and a deconstruction of how information is conveyed and/or presented.
- ◆ A visit with a local special librarian.
- ◆ A discussion of ethical and legal issues surrounding information with a copyright attorney.

Rounding out the course would be two books that would be read in their entirety; three assignments that would cover the Association of College and Research Libraries Information Literacy Competency Standards; a mid-term test and a final; a presentation; and a research project or paper.

### **An Exploration of the Some Lessons Learned**

A librarian will find many differences between the reference desk and the classroom including the dynamic of relating to an audience, structuring the best content possible throughout an entire semester, giving fair grades, and feeling a greater responsibility for outcomes. She can expect unanticipated interpersonal challenges and conflicts with students (but also joys) that can spring up within a 50-minute class period.

This author's experience of teaching focused on both the students in the class and the information itself, rather than the technology or access issues of the online databases. She will share two of her experiences from her classes. The first details English 356 students, as they characterize themselves, and the second details a controversy over the course textbook. The paper will conclude with some reflection and some implications for the reference desk.

### **Students**

The author previously touched upon the nature of students who go into the Digital Media and Culture concentration. They are likely to be older than the average 18-to-21-year-olds, finish their degrees in more than four years, to be computer-literate, and have come to the DMC concentration from another major. One of the best lessons that the author learned was to slow

down, to cover half as much content well, and to allow ample time for discussions. She seemed to excel at conducting discussions; she never understood why.

One of the Spring 2003 class's best discussions was a characterization of themselves in the academy in response to Sven Birkerts' question, "What is the place of reading and the reading sensibility in our culture as it has become?" (15). Birkerts discusses his own compromised sensibilities that include differential subjectivity and the loss of reverie, verbal articulation, and mental passion (13). My students called themselves "The Sesame Generation", characterized as follows:

- ◆ 30-second attention span
- ◆ Appreciation for increased cuts in commercials
- ◆ Facility with videogames (acknowledged outlet for male aggression?), interactivity, and 3-D screen motion
- ◆ Appreciation for good sounds (acknowledge that sounds mean things)
- ◆ Knows the following TV/videogames King Pin, Grand Theft Auto, South Park, Simpsons, Married with Children
- ◆ More willing to take risks/make mistakes vs. pondering the rules
- ◆ Poop in the soup [or] everything you hear/touch/encounter has an effect Don't stir the pot! vs. don't be afraid to poop!

The last two bullets on the list were hotly debated. Taking risks was demonstrated by the ease to which everyone seems to install software on their hard drives and blindly click through the license agreements without reading anything. "Poop in the soup" was what one student, a mom returning to school, told her own kids about always reaching for the best experiences in life and trying to avoid the pitfalls because everything someone hears/touches/encounters has an effect. Others in the class disagreed and thought that a person should try most anything that doesn't compromise other people. Although the discussion turned into an acknowledged generation gap, the author counts this among her peak teaching moments

### **Information Materials**

One of the most intriguing and enjoyable aspects of the classroom experience was encountering the whole spectrum of student attitudes and opinions about their coursework for the first time. Because the author put in a good deal of time and consideration into coursework design, she took all the questions and comments very seriously.

The rationale behind choosing whole books over Xeroxed readings was the belief that reading a single author's voice over time helped students develop their own written voices. The author believed there was a difference in reading a set of pages for ideas and taking the time to ascertain an author's point of view. Although she cannot tell whether this notion held true, she learned a valuable lesson in the process: the most important voice in the classroom was her own. Students best developed a voice in their papers when they fashioned a think piece or a response with her in mind.



For the first semester two books were selected, Charles Jonscher's The Evolution of Wired Life (Wiley, 2000) and Theodore Roszak's The Cult of Information (California, 1990). For the second semester, Sven Birkerts' The Gutenberg Elegies: The Fate of Reading in an Electronic Age (Fawcett Columbine, 1994) was selected because Roszak, advocates the primacy of humans over computers and provides an excellent history of the evolution of the personal computer in Silicon Valley, was outdated.

The author had hoped to use Jonscher's The Evolution of Wired Life as a readable, book-length treatment of one of the course's central concepts: the evolution of human knowledge, and the history of telecommunications, libraries and information technology. The decision to use it as a textbook was made after discovering it through a survey of what was available and reading favorable reviews from Book Review Digest. Jonscher, who has held appointments at MIT and Harvard, offered students a very positive work that was full of impressive facts. However, using Jonscher in the classroom proved to be difficult and the author learned that predicting what will work in class with students is a most tricky endeavor.

Students thought Jonscher elitist and his style of gee-whiz presentation pretentious. Some resented Jonscher's western bias and wanted him to give more attention to the developing world. Most of the students responded to the work by trying to discredit his academic credentials, by loathing the work's "Isn't it wonderful?" tone, and by finding errors with his presentation of facts. Although this criticism amazed the author, she invited the criticism, but cultivated student fact checking and further articulation of what seemed wrong. The author's students thought the Jonscher work grated. It was only after reading several page-long student emails on the subject and listening with interest to students who made it their business to visit her office that the author was able to understand.

The choice of the Jonscher book gave students the best lesson in the world about the standards for authenticity of works. The author acknowledged but couldn't give in to their general charge that Jonscher's Harvard connection was elitist and that his textbook style was a put-off. She told them that she thought that a Harvard connection had generally stood for quality, that Wiley was considered an excellent publisher, and she brought in a half-dozen favorable reviews of the work. But, she also had to acknowledge that in choosing the book for undergraduates she might have sacrificed rigor, relying on Jonscher's Harvard connection for readability, because she thought that students wouldn't slog through something more rigorous.

The conflict over Jonscher resulted in improved teaching and learning. The author responded to the charges against Jonscher by bringing Paul Johnson's The Birth of the Modern: World Society, 1825-1830 (Harper-Collins, 1991), a more rigorous historical treatment, into the classroom for comparison. She was also surprised that she detected a problem in the writing and citing of sources in many "scholarly" or "scientific" works.

In response to the Jonscher problem, several class periods were devoted to pouring over books and web pages. The class was concerned whether the work was scholarly or popular, web-based or print, a reference work or a factual account of a subject, or whether the work was fiction or poetry. Central to the discovery was the authenticity of the work and the attention that was afforded through the imprint, notes and footnoting in the text. One of the greatest lessons was

unfortunate: Even in the best presses and websites, practices to save time and shave corners were apparent.

### **Reflection and Implications for the Reference Desk**

Teaching a class is an excellent way for a librarian to develop an understanding of LIS's many facets. Although the experience with teaching English 356 required a substantial time commitment, the scale more than balanced itself with more in-depth contact with students and greater contact with the literature in terms of textbook selection and in discussions about student projects or papers. The experience has paid off in insights on the job and at the reference desk, including awareness of:

- ◆ How students use the WSU website and gateway
- ◆ Why it can be a pain to authenticate
- ◆ A deconstructed view of electronic indexes and aggregate databases through the eyes of distance students
- ◆ How Google works in tandem with the Library's holdings
- ◆ Knowledge of free websites that offer valuable works
- ◆ How to take a Project Gutenberg text and massage it into something more readable
- ◆ Awareness of how the students view the Holland Library reference desk; the books students own and want to own personally; and why students hate microfilm.

During class, the author regularly asks for feedback about the service at the reference desk. Although most of the comments the author has anticipated, she has heard a few surprises and made adjustments.

This year the author attended a reference assessment program at the American Library Association Conference and hopes to utilize former students in conducting interviews and focus groups. It's always great thing for the libraries to take advantage of an inexpensive but knowledgeable labor pool.

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