

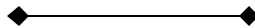
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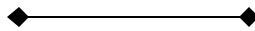
ILLINOIS LIBRARIES



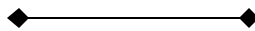
**Partnership for a Community
Cancer Information Center**



**From Support Staff to
Professional Catalogers**



**Educational Resources on
Supernovae for Children**



**Producing a Web-Based
Training Video**

Illinois Libraries

Jesse White
Secretary of State
and State Librarian

Jean E. Wilkins
Director
Illinois State Library

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Editor

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Assistant Editor

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ILLINOIS LIBRARIES is the official journal of the Illinois State Library. The purpose of *ILLINOIS LIBRARIES* is to disseminate articles of general interest to library staff and library governing officials in Illinois who represent all types of libraries and library consortia. Every effort is made to provide a balanced treatment of library-related issues.

Articles are solicited that will address the interests of the publication's audience. Individuals are also encouraged to submit unsolicited articles for consideration. Articles are not limited to Illinois contributors, and guidelines for manuscript submission are available upon request. *ILLINOIS LIBRARIES* will not compensate authors for submitted or requested articles. The editor and/or director of the Illinois State Library has the right to reject and/or edit articles before printing. Edited manuscripts and/or galley-proofs cannot be sent to individuals for approval.

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Table of Contents

Partnership for a Community Cancer Information Center.....Kathe Conley and Marcia Thomas.....	1
From Chrysalis to Butterfly: Transforming Support Staff and New Graduates Into Professional Catalogers...Nirmala S. Bangalore and Lisa Zhao.....	16
Educational Resources on Supernovae for Children....James T. Struck	40
Virtual User Instruction at the University of Illinois Fire Service Institute Library: Producing a Web-based Training Video for Firefighters....Lian Ruan, John Paul, Jeff Cunningham, Sarah Windau.....	48
Guidelines for Illinois Libraries Manuscripts.....	63
Directory, Illinois State Library	64

**Illinois State Library Advisory Committee
2002**

Name	Term Expires
Lydia Acosta Fountaindale Public Library District, Bolingbrook	2003
David R. Bryant LaGrange	2002
Nancy Buikema River Bend Community Unit School District #2, Fulton	2002
Donald Burnett Choate Mental Health & Development Center Library, Anna	2003
Kang Moy Chiu Chicago	2003
Vickie Cook Kaskaskia Community College, Centralia	2002
Prudence Dalrymple Graduate School of Library & Information Science, Dominican University, River Forest	2002
Mary Dempsey The Chicago Public Library	2002
Rodney F. Dinges Chatham	2002
Eileen Dubin DeKalb	2002
Jan Ison Lincoln Trail Libraries System, Champaign	2002
Deborah Johnson-Small Illinois Department of Human Services, Springfield	2002
Allen Lanham Booth Library, Eastern Illinois University, Charleston	2002
Susan Lucco Lewis & Clark Library System, Edwardsville	2002
Robert Plotzke Rolling Prairie Library System, Decatur	2002
Mary Wylie Newberry Library, Chicago	2003
Jane Yoder Waukegan Community Unit Schools, District 60	2003
Arthur P. Young Founders Memorial Library, Northern Illinois University, DeKalb	2002
Kathleen Zar University of Chicago	2003

OFFICE OF THE SECRETARY OF STATE



Jesse White
Secretary of State

Dear Friends,

Where did the time go? It's hard to believe I am now into my fourth year as Secretary of State and State Librarian. I can't tell you how much I've enjoyed visiting libraries throughout the state of Illinois, and how much I enjoy working with you to keep our libraries strong symbols in our communities.

I'm proud of what we've been able to accomplish during my tenure as State Librarian. We've stood side by side on Library Advocacy Day in Springfield to remind lawmakers how important our libraries are to their constituents, and how critical it is that they provide the funding we need to meet the needs of patrons. We've been successful in fighting mandatory Internet filtering legislation, believing as we do that librarians and their boards of trustees have acted responsibly in preparing Internet usage policies for their libraries, and with a few very rare exceptions, these policies are working and are protecting our children from potentially harmful materials that may be accessed on library computers. I firmly believe that decisions made by library boards on such matters as filtering represent local considerations and the will of the community. We've held comprehensive hearings to address the issue of citizens who do not have taxpayer funded library service. I know from talking to many of you during my travels that you enjoy the Find it! Illinois web portal that the Illinois State Library started up several years ago, and is now the best online source for Illinois information. We've worked with the Bill and Melinda Gates Foundation to bridge the digital divide and place computers in libraries serving patrons who might otherwise go without access to the Internet and other computer technology. We created a new grant program in the Illinois State Library Literacy Office, the Penny Severns Summer Reading Enrichment Program, to ensure that families have access to literacy services during times when traditional programs may not operate. And I am so proud that public libraries are serving as hosts for Project Next Generation, the mentoring program I created to provide students with computer skills and the life training our caring mentors provide.

As always, let me say how much I appreciate all that you do to keep our patrons educated, entertained and enlightened.

Sincerely,

A handwritten signature in cursive script that reads "Jesse White".

JESSE WHITE
Secretary of State
and State Librarian

Preface

Patrick McGuckin

As much as I enjoy interacting with members of the Illinois library community and reading the articles they submit to *Illinois Libraries*, I get a special thrill receiving correspondence from librarians and readers in foreign countries. Since this publication has gone online, I've received appreciative e-mail and letters from such faraway places as Italy, England and Japan. Back in the old "hardcopy" days of *Illinois Libraries* our readership consisted of, at most, a few dozen foreign libraries. It's exciting knowing this publication can now be accessed by librarians and anyone else around the world, 24 hours a day, seven days a week, if they're hooked up to the Internet.

I encourage foreign librarians and readers to share their experiences, research and expertise with all *Illinois Libraries* readers. Having met a number of librarians from other countries who have visited here at the Illinois State Library, I've learned we share a lot of the same needs, wishes, successes, and problems. But I've also learned that wherever they live and work, in all parts of the world, librarians share the same commitment and dedication to being a part of their community, and enriching the lives of their patrons.

Patrick McGuckin
Editor
Illinois Libraries

Partnership For A Community Cancer Information Center

Kathe Conley and Marcia Thomas

Kathe Conley is Head of General Reference and Documents, Milner Library, Illinois State University, and Marcia Thomas is Director of Technical Services, Ames Library, Illinois Wesleyan University.

The diagnosis of cancer usually precipitates a series of emotional, financial, spiritual and family crises for patients and their loved ones. Additionally, they are likely to be overwhelmed by a maze of treatment options, healthcare agencies, and insurance providers. In some communities, the lives of cancer patients are easier and less stressful because they have access to comprehensive cancer care administered in a central facility, combined with support services such as psychological counseling and information services. Until recently, communities in and around McLean County, Illinois, were more typical: on a regional basis, there were varieties of oncology services, but no community-based, integrated program. In fact, two out of ten people living with cancer had to leave the area for treatment.¹ In May 1999 the situation improved dramatically when two major hospitals in McLean County opened the Community Cancer Center, a jointly owned facility whose purpose is the provision of services across the continuum of cancer care, from prevention and education to treatment and survivor services. Among the services contained within the Center is a resource center/library that supports the Center's physicians and staff, as well as patients and their families, students, and others in the community.

What distinguishes this oncology center's library is its development based on a partnership between the Center and a well-established network of local community librarians and funding from an Illinois State Library LSTA grant. This article describes the participants, the grant proposal, and the activities of those involved in establishing the library. This article also

provides an overview of the library's first three years of operation, and identifies benefits and challenges of the project.

BACKGROUND

The Community Cancer Center (CCC) is a joint venture between two major hospitals in McLean County, Illinois: BroMenn Healthcare (Normal) and St. Joseph Hospital/Order of Saint Francis (Bloomington). Formally established in 1996, the CCC adopted its mission "to deliver and support high quality, comprehensive multi-disciplinary oncology services to the citizens of McLean County and the surrounding area," serving a population of 750,000. That same year, the Center's governing board inaugurated a \$4,000,000 community fundraising campaign to build a new facility housing radiation therapy, medical oncology, supportive health services and community education services located in Normal, Illinois.

The Bloomington-Normal Metropolitan Area Cooperative Reference Services Librarians Roundtable (RRT) is a network of local reference librarians formed in 1986 to find ways to use their diverse community library, archival and information resources more efficiently and effectively (see Appendix A). The Roundtable is composed of staff representing eleven academic, special and public libraries, and has successfully completed several collaborative reference projects.²

In the fall of 1997, the diagnosis of breast cancer in one of the RRT librarians brought home the need for an accessible collection of consumer-oriented cancer information. RRT librarians met with the executive director and the clinical coordinator of the Cancer Center to explore ways in which the Roundtable might assist in establishing and maintaining its resource center. At this time, the Center was in its final planning stages; a site for the new facility had been located, and a building plan was in the hands of architects. The librarians studied existing

plans and documents, along with a feasibility study conducted by CancerCare Point, an oncology services consulting firm from Atlanta. Among the findings based on physician and patient surveys, discussions with business leaders and community health agencies, and community focus groups were:

- 40% of the target population would develop some form of cancer in its lifetime.
- Health care providers expressed the need for effective coordination of support services and community education to assure optimal utilization of the community's oncology specialists.
- In addition to medical care, education services should be integrated into the program and be available at the facility.
- Cancer survivors and family members wanted an information center that would not only serve the newly diagnosed individual, but family members and the greater community.³

Additional information regarding community needs was obtained from an earlier business proposal presented to BroMenn Healthcare to establish a consumer health library. An internal BroMenn task force found that no single facility within the community placed “a primary emphasis on consumer health education or health related information needs.” While St. Joseph Medical Center and the public libraries had consumer-oriented collections, their materials were deemed “quite limited and [in the case of St. Joseph] very outdated.” A survey of 32 physicians indicated that a health education resource center “was necessary and would prove valuable to the community and their practices.” The task force also found that “The United Way, the McLean County Health Department, and both the Normal and Bloomington public libraries strongly

support and endorse a consumer health library initiative." BroMenn Healthcare did not adopt the proposal but the report clearly demonstrated the need for such a service in the community.

A review of programs similar to the proposed information center was conducted via the MEDLIB-L listserv. A number of respondents provided suggestions for core lists and resource guides. A librarian from Joliet wrote: "I feel like this should be a collaborative effort with public librarians and other resources in the community. But who has time to set up such a group?" Fortunately, in McLean County such a group already existed. The Roundtable librarians concluded that they and their community would greatly benefit from a one-stop cancer information center that would also serve as a referral source for other libraries. Although the librarians were excited about plans for a resource center, they were concerned that the CCC's initial five-year operating budget did not include funds for a librarian.

In 1997, the Roundtable and the Center agreed that a partnership between the two organizations would be mutually beneficial. The Center would receive professional materials selection advice on a volunteer basis; area libraries would be able to utilize the resources of the CCC; and the community would have access to a professionally developed collection of current, consumer-oriented medical information. The librarians determined that they could volunteer their professional expertise in the following ways:

- Guide in the development of selection policies and other library/information policies
- Assist with selection of materials
- Explore potential additional partnerships
- Provide volunteer staffing by professional librarians

- Solicit area libraries for donations of additional equipment, supplies and materials

As RRT librarians researched existing consumer-oriented cancer libraries and worked with the Center's director and staff, the scope and depth of the vision for the information center expanded. The Roundtable explored the feasibility of submitting a proposal to the Illinois State Library for LSTA funding for the purchase of materials and equipment to augment the collection and services already planned. First and foremost, an LSTA grant would provide significant funds for a more comprehensive collection covering a broad range of health concerns, such as social and psychological issues of patients and their families, and cancer prevention through diet, exercise, and physical well being. The partners also saw a need for leisure reading for patients and their families and access to the most current medical information available via electronic databases and the Internet. Two members of the Roundtable, in consultation with the CCC director, the librarian of the BroMenn Healthcare Health Sciences Library, and RRT librarians, wrote the narrative and completed the application packet for a FY 1998 LSTA grant in the amount of \$30,000. The proposed budget was \$20,500 for library materials and \$9,500 for capital outlay to purchase computers and printers, supplementing \$53,952 designated by the Cancer Center for the library's first-year operating and capital budget.

The grant proposal, submitted under the auspices of the BroMenn Healthcare Health Sciences Library, focused on the role of Roundtable librarians, the collection to be purchased with grant funds, and the uniqueness of the project. Ten members of the Roundtable signed agreements to volunteer their time to undertake specific duties related to this project, including providing professional staffing at the information center 20 hours a week. The grant was approved in April 1998.

ACTIVITIES AND ANALYSIS OF THE GRANT PROJECT

Roundtable librarians collectively assumed the role of a professional librarian and crafted objectives to shape the resource center into an organized and professional entity freely accessible to all members of the community. RRT members divided into working groups to complete the tasks of the project, assisted by the executive director, staff and volunteers of the Community Cancer Center. Areas targeted for apportionment included selection; ordering; payment of invoices; cataloging; interlibrary loan; weeding; scheduling; reference training; marketing/promotion and computer support and maintenance.

A policies and procedures committee collected written policies from public and special libraries, interviewed librarians, and visited similar libraries. Sample policies and procedures were reviewed and adapted for use in the Resource Center. Throughout the process, the executive director of the CCC had direct input and final approval of policies as they developed, with the expectation that a Community Cancer Center Advisory Board would approve them. The committee developed a document that included a mission statement, collection statement, an acquisitions policy, and policies for interlibrary loan, access, circulation and donations.

The BroMenn Healthcare librarian, the CCC executive director, and a Roundtable librarian created an initial purchase list of titles for the library's core collection with an emphasis on patient education and consumer-related healthcare information. General topics included diagnosis, treatment, nutrition and coping strategies in a variety of formats. Selection tools included:

- Brandon -Hill selected list of books and journals in allied health
- Brandon-Hill selected list of books and journals in nursing
- Northwest Community Hospital Cancer Resource Center list of holdings

- Doodys Health Sciences Book Review Journal
- Doodys Nursing and Allied Health Book Review Journal
- Library Journal
- Candlelighter's Childhood Cancer Foundation
- Publishers' catalogues
- Survivor, physician, librarian and clinician recommendations
- Existing cancer center libraries' collections

Selection criteria were established at the beginning of the process and followed closely.

In most cases, only current items were selected. Content was evaluated according to the predicted patron base that might use the Resource Center materials. Selected titles from certain publishers and associations were considered "must haves" and included on the list. Above all, competency of clinical information and current medical practices were considered as selection criteria. A final list of recommended book and audiovisual titles was then compiled. A committee consisting of several Roundtable members, the CCC executive director, a physician, a volunteer, and the CCC clinician reviewed these titles. From the reviewed list, titles were purchased primarily from established book vendors, including Baker & Taylor and Login Brothers Book Company. Other items were purchased directly from publishers, local bookstores and Internet sources. Some books and audiovisuals were acquired for review purposes and kept or returned following their evaluation. The BroMenn Healthcare Library processed all purchases while the Cancer Center office handled payment of invoices.

Initially, the intent of the grant project was to create a catalog of resources based upon a local classification system for easy and expedient accessibility. Parallel to this development was

the plan to create MARC records so that bibliographic records could be entered into an online catalog that other libraries in the region and state could access. When it was ascertained that the RSA would only accept OCLC cataloging, librarians devised a plan for a retrospective conversion project using OCLC through BroMenn Healthcare at a later date. In the meantime, librarians decided to share the Center's resources by distributing lists of purchased titles to local libraries. RRT members planned to create and distribute subject bibliographies to member libraries, the Community Cancer Center, and physicians' offices.

The Cancer Center office handled marketing and promotional activities. Budgeted items included public service announcements, features for television and print media, and paid advertising. Cancer Center staff and board maintained an active schedule of public speaking engagements.

Members of the Reference Roundtable expressed a strong commitment to the CCC Resource Center by volunteering to staff the center as much as 20 hours a week, primarily during late afternoon, evening and weekend hours. In conjunction with Cancer Center personnel, members of the Roundtable developed a list of competencies, activities, policies and procedures to be covered in a training manual. Additionally, a job description was written for the position of Library Assistant/Volunteer.

FIRST YEARS OF OPERATION

The project, to date, has been quietly successful. Since the Center's opening in May 1999, the library has shown consistent use by patients and their families, physicians and staff, and, recently, students of all ages from local schools and universities. In-house statistics, recorded by volunteer staff, show that women outnumber men as patrons about 3-1, and nearly

60% are 40-60 years old. Because, according to Library Coordinator Peg Wetzel, “many older clientele did not identify with a 'resource center,’” on January 1, 2000, the Resource Center was re-named “The Library At the Community Cancer Center.”

The library is not staffed all hours that the Center is open. Therefore, usage is undoubtedly higher than the numbers in the table below.

TABLE 1 USAGE STATISTICS COMPILED BY CCC STAFF

YEAR	TOTAL PATRONS	BOOKS/VIDEOS CIRCULATED	CancerHelp use	Other computer resources use
1999 (5/1-12/31)	400	190	52	94
2000	515	253	84	69
2001	457	270	41	65
2002 (1/1-4/30)	161	139	19	17

The Library Coordinator works with the CCC volunteer coordinator to schedule staffing for the library. A retraining session for volunteers is planned for the summer of 2002. Volunteers will receive an updated training manual which will include position description, volunteer shift procedures, record-keeping policies and procedures, circulation policies and procedures, information on using the equipment and directions for specialized tasks such as retrieving overdue items. Currently volunteers mostly charge and discharge materials, but will assume new duties such as phoning for overdue books, preparing date due calendars, and updating the CancerHelp CD-ROM database. Volunteers are rewarded at volunteer appreciation events in May and receive small gifts and notes throughout the year.

There is not a separate, formal governing structure for the library. Policy and funding decisions are made by the volunteer library coordinator and the Center's executive director in keeping with the mission and policies of the CCC and the needs of the library. Library funds are

from the general operating budget. Many of the new book purchases are made through donations and memorial gifts. Originally, the Center's Foundation could not accept gifts intended specifically for the library, but Foundation bylaws were changed so that such designated gifts can be accepted.

Few changes have been made to the original policies and procedures established with assistance from the RRT librarians. Library policies have not been formally adopted by the Center's governing board but are enforced by the executive director. Some procedures have changed and others are due for review. Currently, most materials circulate; exceptions are reference books, general interest magazines, and medical journals. Tables of contents from medical journals are distributed to doctors and staff who mark articles for volunteers to copy.

Originally a committee of doctors, staff, and librarians reviewed all materials selected for the library. This plan proved unworkable as the reality of busy doctor and staff schedules precluded adequate time for reviewing books. A more viable model has surfaced in which staff, doctors, and patients make suggestions for acquisitions. The volunteer coordinator finds reviews of suggestions and checks holdings of other cancer center libraries such as Memorial Sloan-Kettering Cancer Center and MD Anderson Cancer Center at the University of Texas.

The book collection is arranged in the library according to a "homegrown" classification system. This system identifies specific cancers and cancer-related subjects by means of color-coded labeling. A simple card catalog of resources was created with assistance from RRT librarians using the cataloging program MacCALM. The initial intent to create MARC records fell through because the designated regional consortium only accepts OCLC cataloging. A back-up plan for cataloging with OCLC through BroMenn Healthcare did not materialize due to the merger of its Mennonite College of Nursing with Illinois State University and the subsequent

restructuring of the BroMenn Health Sciences Library. Retrospective conversion by RRT volunteers was planned once the health sciences library restructuring was finalized.

However, the issue of accessibility is currently being addressed: the Library Coordinator and RRT volunteers are creating an updated shelf list in an Access database. The searchable database will be available on the Cancer Center's web site at <http://www.cancercenter.org/>. The site, still under construction, includes a link to the library page with further links to recognized cancer sites such as the National Cancer Institute and OncoLink.

The library coordinator identifies marketing of the library as its "weakest area." She has made some contacts with schools and churches and information about the library is given out at community health fairs. She also initiated a new marketing tool with the local newspaper: new acquisitions will be featured in a regular column along with local public libraries' lists. In addition, the Roundtable plans to follow through on creating subject bibliographies for distribution throughout the community. Plans for marketing include placing small posters advertising the center in doctors' offices, and crafting inserts to be placed in church bulletins. Bookmarks and other promotional materials will be placed at reference or information desks of local libraries. These activities will broaden community awareness of the CCC's library resources.

BENEFITS AND CHALLENGES

One of the items submitted with the LSTA grant proposal that was sent to the Illinois State Library is a chart that identifies partners involved in this project, as well as the role, contributions, and potential benefits for each partner (see Appendix B). In retrospect, the chart was remarkably predictive of the benefits accrued to the Cancer Center, the Roundtable and its

individual members, cancer patients and their families, and the larger community by the conjoining of the expertise of librarians with that of health care providers. Most notably, the CCC library benefits greatly from the diverse individual librarian talent available in the community, each representing different types of libraries with different collection emphases and possessing different areas of expertise (reference, training, cataloging, collection management). Among Roundtable members, a heightened sense of collegiality developed as they focused on a long-term project that held a great deal of personal as well as professional meaning. The librarians truly enjoyed the process of essentially creating a library from the ground up, a process that none of them had experienced.

Undertaking the establishment of a library on a volunteer basis presents a variety of challenges. Certainly to make such a venture work in the absence of paid library staff, a strong, dedicated volunteer library director is essential. Policies and procedures must be developed, volunteers thoroughly trained, funding strategies delineated, and a solid marketing plan worked out. Sustaining the ongoing interest and commitment of volunteers is especially challenging. In retrospect, the partners should have created a plan for long-term evaluation of the project to encourage continuing involvement by the Roundtable. Some individual RRT members continue to volunteer their time and skills, but a few project goals remain unmet: for example, a catalog that is remotely accessible, the production of subject bibliographies, sustained participation in marketing activities, and the appointment of an advisory board by the CCC director to oversee such activities as weeding and updating the materials collection. Nevertheless, all participants in this partnership agree that the collective expertise and energy of local librarians, combined with LSTA funding, made a profound, positive difference in their community's quality of life.

ENDNOTES

1. CancerPoint, *Business Plan for a Joint Venture Community Cancer Program for BroMenn Healthcare and St. Joseph Medical Center* (Atlanta: CancerPoint, 1995).
2. Thomas, Marcia and Lori Logsdon, "Reference Librarians Round Table: A Multitype Network for Improved Reference Service in the Bloomington-Normal, Illinois, metropolitan area," *Public Libraries* 29 (Jan.-Feb. 1990) 32-4.
3. CancerPoint.

APPENDIX A. LIST OF PROJECT PARTICIPANTS

BLOOMINGTON-NORMAL METROPOLITAN AREA COOPERATIVE REFERENCE SERVICES LIBRARIANS' ROUNDTABLE

Bloomington Public Library
Anne Dickerson

Normal Public Library
Lynn Freymann
Judy Poultney

Illinois State University
Kathe Conley

Illinois Wesleyan University
John Westall

Heartland Community College
Anna Maria Watkin

A.E. Livingston Health Sciences Library, BroMenn Healthcare
Toni Tucker
Sally Vance

Alliance Library System
Felicia Sworsky

The *Pantagraph* Newspaper Library
Diane Logsdon

Illinois Agricultural Association
Mary Wilkins

State Farm Insurance Companies Corporate Library
Sylvia Justice

McLean County Historical Society Stevenson-Ives Library
Patricia Hamilton
Marcia Thomas

IN PARTNERSHIP WITH:

Barb Nathan, Executive Director, Community Cancer Center
Nancy Erwin, Clinical Coordinator, Community Cancer Center

Peg Wetzel, Volunteer Library Coordinator/Director, Community Cancer Center

Community Cancer Center
 407 E. Vernon
 Normal, IL 61761
 309-451-8500
 www.cancercenter.org

APPENDIX B. CHART OF PARTNERSHIPS

PARTNER	ROLE	CONTRIBUTIONS	BENEFITS
Reference Round Table	Provide professional library services on a volunteer basis; supplement and enhance basic services	Selection, cataloging, collection maintenance, volunteer staffing, professional consulting services	Access to a comprehensive consumer health library for all libraries; opportunity for individual training and CE in health sciences; strengthening of partnership
Community Cancer Center	Provide physical space and financial support for the information center as an essential component of the CCC	Fiscal agent; administrative services including purchasing, marketing, physical maintenance of facility and equipment; operating funds for materials, equipment, telecommunications; clinical and volunteer staff	Professional library expertise and consultation; additional funds to purchase materials and equipment to provide a comprehensive, multi-faceted collection; ability to meet the broad spectrum of every consumer's cancer-related information needs
Patients/Families	Targeted end-user for services provided	Financial contributions; advisory role for material selection & services	Comprehensive, consumer-oriented information, covering a broad range of needs, located in one facility; opportunity for pro-active cancer treatment
Community	Raise funds for building the facility; provide expertise of individuals, organizations	Over \$3.5 million raised in capital campaign to date (goal of \$4 million)	Equal access to information at all levels of need

From Chrysalis to Butterfly: Transforming Support Staff and New Graduates Into Professional Catalogers: A Case Study

Nirmala S. Bangalore and Lisa Zhao

Nirmala S. Bangalore is Acting Catalog Librarian and Lisa Zhao is Assistant Catalog Librarian at the Richard J. Daley Library, University of Illinois at Chicago.

The world of librarianship is caught up in a vortex of never ending, rapid and far-reaching changes resulting in profound challenges that call for creative thinking. Academic and research libraries are central to the larger institutions and constituencies they serve. When the parent institutions (universities, colleges, junior colleges) undergo change, the consequences are always experienced in libraries. The future is ever more uncertain. All of this causes the profession to reexamine its core values. The broad societal trend of cost containment with various spin off effects including accountability, has not spared higher education. Childers observes, “Many forces are changing the American university in terms of its organizational structure, organizational culture, and relations with the world at large. The core force is economic, and all others emanate from there.”[1] Growing demands from users of libraries are stretching scarce resources to their limits. Monetary, space, and other resources keep shrinking; by far, however, a library’s most precious resource is its workforce. Human resources are spread thin in every type of library, forcing library administrators to make some hard choices.

In order to respond to the challenges of the 21st century, educational institutions have to be flexible and proactive. Guided by institutional mission and strategic goals, recruitment plans have to be designed to meet changing needs. To make the most of available human resources in providing services to a diverse population, academic libraries have turned to various ways of upgrading the skills of support staff (e.g., in-house training sessions by professional librarians).

In addition, support staff is being encouraged to pursue a degree in library science and enter the professional ranks. Like any newly minted professionals in other fields, graduates from library schools need a work atmosphere of helpful co-workers, a place where their course work can be utilized, their potential maximized and their blossoming careers nurtured. The real world can be daunting, but holds endless challenge. Librarians with more experience in their chosen specialties can guide the new professional. Balancing the needs of the library against maximizing each employee's potential, while simultaneously creating a basis for sensitivity to differences in age, race, religion, gender, ethnicity, culture, life style, and other factors in the workplace requires considerable diplomacy. This paper presents a case study of one university's response to the recruitment and training challenge, with special emphasis on cataloging as the area of expertise. While the size and type of institution will dictate who performs the training and mentoring, how long the training lasts, and what is covered in the training period, some elements of training programs will be common to all situations.

Case study

This paper describes a case study conducted at the University of Illinois at Chicago (UIC), a diverse, comprehensive, public university located in the heart of Illinois' largest metropolitan area. UIC serves approximately 25,000 students and 10,000 faculty and employees on its East (Main) and West (Medical) campuses and other sites in Peoria, Rockford and Urbana, Illinois. The UIC Libraries include: Richard J. Daley (Main), Architecture and Art; Mathematics, Science, and Library of the Health Sciences (LHS) at Chicago, Peoria, Rockford and Urbana. The UIC Libraries house over two million volumes with materials classified in the Library of Congress (LC), National Library of Medicine (NLM) and Superintendent of Documents

(SuDocs) schedules. Along with other large research universities, the UIC has a Resident Librarian Program. A new graduate is given two years of on-the-job training. At the end of this period there may be opportunities to apply for tenure track positions. Alternatively, some residents opt to obtain employment in other institutions. Since its inception in 1982, 115 individuals have participated in the UIC Resident Librarian Program (11 on a part-time basis). Of the full-time Resident Librarians, seven have worked in the Catalog department. Most residents work in one specific area of the UIC libraries. A few work split assignments (e.g. Reference/Systems, Government Documents/Collections Development) with approximately 50% of time spent in each section. One resident worked 75% in the Catalog department and 25% in Reference. Wearing two hats early in their careers helps new professionals. For example, as they create and maintain bibliographic and authority data in the local, regional and national databases, seeing the OPAC users' perspective in a cataloging/reference job is very productive. The technical knowledge acquired as a cataloger aids in answering patrons' questions, while interacting with patrons first-hand helps to understand how users think and consequently is useful in assigning subject headings and classifying materials.

Another way that new professionals are nurtured at UIC is through the "Fridays only" program. Gibson and Koenig reports that "In 1990 the Graduate School of Library and Information Science at UIUC [University of Illinois at Urbana-Champaign] began a program which would enable a part-time student to go to school one day a week for approximately five semesters to earn an MS in Library and Information Science. Friday was chosen because the core courses for the program met on Fridays." [2] Support staff is given Fridays off to pursue an MLS degree while continuing to work in the UIC libraries. Upon graduation, each individual works at the UIC Libraries for two years as a "Professional Library Associate". The experience gained as

a support staff member in the same institution is utilized, especially when the individual is assigned to the same department he or she worked in prior to getting the professional degree. Since 1990, thirteen support staff members have taken advantage of the “Fridays Only” Program. Of these, three “Professional Library Associates” have worked in the Catalog Department. One individual previously in a support staff position graduated from Dominican University, but also had the same title.

New library school graduates have been trained at UIC with cataloging as the major focus. Their titles are “Professional Library Associate” or “Resident Librarian”. Working in a large academic library under the guidance of an experienced cataloger allows the fledgling catalog librarian to experience professional socialization, to learn to work as part of a team, and to progress through stages of career growth and development along the continuum toward independence. Training and supervision of newly graduated catalogers necessitates a major time commitment. Pausch describes how “the teaching of cataloging can be viewed as either education or training. Education, on the one hand, produces prospective librarians who have learned a surfeit of cataloging theory but have no practical experience in the real world of cataloging ...Training, on the other hand, results in recently graduated librarians who have mastered the fundamental practical aspects of cataloging but who do not have the philosophical and conceptual foundation that allows for mature, reasoned responses to changing library and cataloging situations.”[3] Library school education equips students with basic professional values and tools. Building on what they learn in library school, new graduates under training as catalog librarians benefit from being “shown the ropes” in day-to-day work. They also learn about the larger issues in the cataloging world at the national and international level. Preparing new professionals to produce bibliographic and authority records of such a consistently high

quality that they can be readily acceptable to other libraries in large bibliographic utilities needs time and attention. More than other specializations within librarianship, cataloging requires careful attention to training, to pulling together of various tools, to stressing attention to detail. Knowledge and interpretation of rules, application of international, national and local standards, and dissemination, discussion, review and updating of local policies is essential. Avram observed that automation means a cataloger's mistake could be copied on a national or international scale. "Material that is not accessible is, in effect, useless. Cataloging provides accessibility of material, and the quality of cataloging depends on the knowledge and skills of the people who do it. To be effective, catalogers must be well trained in addition to being well educated. Any investment in their training is an investment in the future enhancement of comprehensive bibliographic control for this country and, indeed, the world." [4]

Creating and maintaining cataloging records is becoming increasingly more complex. Khurshid points out that, "Today the role of catalogers has taken on new meaning and greater significance. They must be conversant with a wide range of computer systems and software, and they must keep up with a continual flood of software enhancements in addition to knowing the cataloging principles, rules, and codes." [5] Not only is cataloging becoming more complex, it is becoming ever more flexible. As the boundaries between public services and technical services fade, and local databases become more of a shared resource, new catalogers are forced to use their knowledge in novel ways and in diverse situations. According to Bates, "When it comes to cataloging, we need to prepare professionals who can recognize generic information description problems and translate them across all media. The AACR2 and Library of Congress Subject Headings will not do for all information in all environments. Our students need to be able to select an indexing language for a website's database, or develop an electronic finding list for an

online archival collection.”[6] This observation applies not just to formal course work in Library and Information Science, but also to on-the-job training for cataloging. At the UIC Libraries, new catalogers work closely with their public service colleagues, create and maintain Websites, deal with electronic resources and work with evolving systems and dynamic databases.

Bishop noted, “Training programs at Pennsylvania State University, New York State University, Albany, and the Library of Congress are evidence that senior catalogers in these organizations believe that cataloging education in library schools is not and probably cannot be complete.”[7] Indeed the library degree is only a starting point for academic library catalogers who engage in a lifetime of learning experiences and become part of the campus academy. Due to a lack of time, faculty members who teach cataloging courses have to select some key elements on which to focus. In analyzing the errors made by entry-level catalogers, Romero pointed out, “With the limited amount of time spent in a cataloging course and the increasing number of cataloging tools with which to become familiar, it is difficult for all students to complete a cataloging course with extensive knowledge of cataloging in their first library position.”[8]

However well taught, courses in cataloging tend to have a half-life for the technical details retained in Library school students’ memories. The concepts learned usually have a longer retention time. The details involved in cataloging materials can and should be picked up as the new professional cataloger processes various materials. Training new catalogers has become more challenging than ever. Judging from the UIC experience, while more seasoned catalogers provide continuity, Resident Librarians and Professional Library Associates often bring in fresh, new ideas and can be a rejuvenating influence for the entire department. Mentors in the UIC catalog department help identify service and research interests of new graduates and

steer the newcomers into participation in institutional, campus-wide, local, regional, national, and international professional committees of their choice. More experienced colleagues also aid in identifying worthwhile research projects, reviewing drafts of manuscripts, and even collaborating in conducting research. UIC provides a nurturing atmosphere for new catalog librarians. At UIC, new catalogers are trained step-by-step, progressing from national library copy, to member-input bibliographic records to original cataloging. Catalog Librarians in training gain a broad understanding of the field and are given the opportunity to zero in on personal interests. Depending on the university's needs and each individual's unique skills set, formal education, undergraduate background etc., the trainee may be assigned to specialized languages, disciplines and/or formats. The cataloging of electronic resources poses a whole set of new challenges, which may be daunting to a first year trainee; however, once the basics of cataloging have been mastered and confidence gained in original cataloging, second year trainees have proved to be the perfect answer to filling voids in staffing for cataloging electronic resources.

Methodology

In order to investigate how well formal course work in Library and Information Science (LIS) prepares Catalog Librarians for the working world, the authors designed an electronic mail questionnaire. The questionnaire was sent to Residents and Professional Library Associates currently working in the UIC Catalog Department, as well as ex-employees in those positions. Most of these individuals graduated in the 1990s and are still working in cataloging. One of the ex-employees declined to participate in this study because she has been working in another specialization and felt she did not have a chance to utilize her training in cataloging. Another ex-

employee returned to her native country after training, and could not be located. Of the eight questionnaires sent, six responses were returned (75%). All of the respondents had experience in library work. One out of the six respondents (16.66%) had experience in copy cataloging; one (16.66%) was an experienced searcher in pre-processing. The other four (66.68%) had experience only in public services in academic and special libraries.

Desretta McAllister-Harper in her article "An analysis of courses in cataloging and classification... offered in sixteen graduate library schools" has categorized courses in Cataloging and Classification and related areas listed by the sixteen graduate library schools by course description into twelve general areas:

- Advanced Cataloging and Classification
- Analytical Bibliography
- Automation
- Bibliographic Organization
- Cataloging and Classification
- Classification Systems
- Collection Development
- Indexing
- Organization of Special Types of Materials
- Special Problems and Policies of Library Cataloging
- Subject Analysis and Search
- Technical Services

She concluded, "If the courses found in the sixteen library schools could be studied in depth and their validity tested, a curriculum with courses in Cataloging and Classification and related areas could evolve that would satisfy the needs of all professional academic catalogers. But the problems are: 1) "Not all sixteen of the library schools are offering courses in cataloging and Classification to meet the trends and needs of Cataloging and Classification; 2) Students hardly take only classes related to Cataloging and Classification. There are other LIS courses for students to choose; 3) Change is constant." [9]

Answers to the first question: "What cataloging and classification related classes have you taken in the school?" are summarized in Table 1. From these responses, we can see that it is very difficult to reach the circumstance where students could study twelve categories in depth.

TABLE 1

Categories	Number of respondents who took the course (Total number = 6)
Cataloging and Classification	5+1*
Automation	3
Collection Development	2+1*
Advanced Cataloging and Classification	2
Bibliographic Organization	1+2*
Special Problem and Policies of Library Cataloging	1+2*
Analytical Bibliography	1
Indexing	1
Organization of Special Types of Materials	1
Classification Systems	3*
Subject Analysis and Search	1*
Technical Services	0

* One took a general class that covered the content.

Twelve categories in Table 1 are reorganized in the order by the number of respondents who took each class. At the top is the Cataloging and Classification: all six respondents (100%) took it. The second one is Automation. Besides three people (50%) who took the class, another respondent has written under the Automation, "instead of taking this, I took a Programming class in Computer Science Department." Two of six people (33%) took Collection Development and Advanced Cataloging and Classification. One of the six (17%) took Bibliographic Organization, Special Problems and Policies of Library Cataloging, Analytical Bibliography, Indexing, Organization of Special Types of Materials. The basic course in Cataloging and Classification in LIS schools covers almost every major aspect of LIS. But it stays only at a very subtle level of introduction.

In answering our second question: "What categories have been most useful to your cataloger position?", respondents again vote the Cataloging and Classification class as number one and the Automation the second. The results are shown in the Table 2.

The Cataloging and Classification class introduces a wide range of topics in cataloging and classification. It usually is the first level of the Cataloging and Classification classes. In GSLIS of (UIUC), for example, this class, in 1996, had Lois Chan's book "Cataloging and classification: an introduction" as the textbook. It also required many supplementary sources, such as, "Anglo-American Cataloging Rules", "Handbook for AACR2: Explaining and Illustrating the Anglo-American Cataloging Rules", "Rules interpretation", "Dewey Decimal Classification", "Library of Congress Classification", "Library of Congress Subject Headings", "Sears List of Subject Headings", and "Medical Subject Headings". Students get an overview of the whole picture of the Cataloging and Classification from classes such as this. Knowledge gained from the class may not be used right after graduation. But it has laid the foundation for students to adapt to different libraries' catalog systems in future work.

TABLE 2

Categories	The most useful class
Cataloging and Classification	4
Automation	3
Advanced Cataloging and Classification	2
Indexing	1
Analytical Bibliography	0
Bibliographic Organization	0
Classification Systems	0
Collection Development	0
Organization of Special Types of Materials	0
Special Problems and Policies of Library Cataloging	0
Subject Analysis and Search	0

Cataloging and Classification is a very practical aspect of work in the LIS profession. A cataloger could confront many types of materials at work, such as monographs, serials, visual materials, music materials, documents, archives, rare books, and electronic resources. Cataloging each type of these materials requires very specific skills and rules. It is impossible to cover all of these subjects in LIS school. In the classroom situation there is not enough time for both professors and students to explain and pay attention to every specific rules and bibliographical record details. Mastering details and gaining familiarity with cataloging tools and rules requires time and practice. These concepts, therefore, are left to on-the-job training and continuing education after graduation. Our third question: "What aspects of your work were not covered in your LIS classes?" and fourth question: "What have you learnt more at work?" investigated these points. The results are shown in Table 3 and Table 4. The responses have provided some substantial points to consider in future on-the-job training.

TABLE 3

Aspects of work not covered by LIS courses	Number of respondents
Cataloging electronic resources	5+1*
Cataloging rare materials	5
Cataloging computer files	4+1*
Cataloging serials	4
Cataloging visual materials	4
Cataloging music	4
Cataloging documents	4
Familiarity of cataloging tools	0
Familiarity of cataloging rules	0
Methods of searching some databases:	
OCLC	
Local cataloging system	2
Search engines	2

* being introduced in the class

TABLE 4

Aspects of work learned more at work	Number of respondents
Familiarity of cataloging tools	5+1*
Familiarity of cataloging rules	4+1*
Methods of searching some databases:	
OCLC	4+1*
Local cataloging system	4
Search engines	4
Cataloging music	3
Cataloging serials	2
Cataloging visual materials	2
Cataloging documents	2
Cataloging computer files	1
Cataloging electronic resources	1
Cataloging rare materials	0

* Had experience in this area before going to LIS school

In Table 4, the first three aspects are very basic, but very practical and time consuming for every cataloger to master. The other aspects vary depending on the work assignments of the individual cataloger.

All six of our respondents (100%) had working experience in library settings before going to LIS schools. Four of these (66.66%) worked at the UIC Libraries prior to attending LIS school. This meant that they were very familiar with the local systems and databases. Some of them were also familiar with using OCLC. Only one person (16.66%) had at least some cataloging and classification experience. Their previous experience saved time on the part of the trainers, since local and national databases searching has already been mastered by the trainees.

Regardless of what working experience they had, and what classes the LIS graduates took in school, on-the-job training always becomes a necessity. This training usually takes about one year. In training professional catalogers, we found that it is not limited only to training on the

minute details of cataloging and classification. As is the case with LIS schools, on-the-job training should also introduce all issues pertaining to the entire spectrum of our profession. This includes, for example, academic events, organizations and their operations, connection with local, national, and international academic organizations and their activities, publishing in professional journals, and presenting research projects at conferences. Most new graduates want to be involved in various professional groups. They will gain more job satisfaction and interest in relevant activities through active involvement, resulting in increasing feedback from the trainees. Trainers can utilize such feedback for future use.

In the LIS school, some classes and activities give students the knowledge, skills and connections necessary for professional development. Our respondents listed classes that have helped them in their professional jobs. The results in Table 5 and Table 6 show their responses. Most new graduates still need senior professionals' introduction to start their real job-related involvement in various professional activities. Trainers of catalog librarians need to keep the trainees on the right track, and avoid any unnecessary detours. Senior colleagues' experience in publication, focusing on some interesting subjects, making new graduates their co-authors, and cooperating on projects are some very valuable shortcuts for new graduates growing into their careers.

TABLE 5

CLASS	VOTE
Computer related classes	4
Library systems	4
Reference	4
Grant writing	3
Library administration	1+1*
Personnel	0

TABLE 6

KNOWLEDGE OF	VOTE
Connection with professional associations or groups	5
Research methods	2
Knowledge of publishing in professional journals	2

Most new LIS graduates bring to their jobs an infectious enthusiasm and a wish to learn more about the profession. They are well equipped to deal with the increasing pervasiveness of technology in their work. Often they have taken formal courses in automation and in specific programming languages. Some have specialized undergraduate backgrounds in technical fields (e.g., one of the respondents of our survey holds a degree in Electronics Engineering). However, guidance in the administrative and research aspects of their work has to come from senior colleagues. This is true in cataloging as it is in other specializations within librarianship.

The UIC Catalog Department has found that a one-on-one approach works best for on-the-job training. Using the document “Training Catalogers in the Electronic Era: Essential Elements Of A Training Program For Entry-Level Professional Catalogers”[9] as a guide, cataloger trainers at UIC build upon the theory learned in library school by the new graduate. Sometimes, the trainee also brings to the job some experience in cataloging as a support staff member. Such experience has proved especially valuable when dealing with particular media e.g., serials, or language groups, e.g. the Romance languages. New hires bring in fresh, new ideas and often prove to be well suited to analyzing cataloging workflow patterns, discovering flaws, and suggesting changes in practice.

To begin with, new catalogers are walked through the entire cataloging operation for current DLC #c DLC monographs in English in order to be conversant with local procedures and

workflow patterns. Increasingly complex materials constituting member-contributed records are then worked upon. Most works of fiction need no subject headings and many authors of fictitious works have names established in the national authority files with a MARC field 053 (class number for literary authors). With this in mind, the first original records for titles not already described in national bibliographic databases (such as OCLC) created by new catalogers are usually for current English language fiction by an established author. Practice in assigning of subject headings and classification numbers is the next step. The UIC libraries acquire, process and circulate materials on medical as well as non-medical subjects. Two subject heading schemes (LCSH, the Library of Congress Subject Headings, and MeSH, Medical Subject Headings) and two classification schemes (LC, the Library of Congress and NLM, the National Library of Medicine) are in use. Since a considerable number of titles cataloged for the Library of the Health Sciences at all four sites (Chicago, Peoria, Rockford, and Urbana) need “LC type” call numbers, new medical catalogers are first trained in the LC classification scheme. The medical side of the UIC campus acquires many computer-related materials as well as titles on general subjects (e.g. encyclopedias) and non-medical subjects (e.g. statistics). After the LC classification scheme has been covered, the NLM classification scheme is introduced. Simultaneously, new catalogers are trained in assigning MeSH. Training is also carried out on establishing and maintaining authority files. After the trainee has mastered the monographs format, other formats are introduced. There are no firm production quotas, and no set deadlines for completion of the training and review period. Each individual works at his or her own pace. After this period, the cataloger becomes independent. In the post-training and review period, catalogers may consult colleagues (e.g. for specialized areas such as law) when needed.

New catalogers are encouraged to work closely with support staff on special projects. A “team cataloging” approach has worked well for taming backlogs. For bibliographic records with DLC #c DLC copy, but no medical access points, a support staff member completes descriptive cataloging and authority work, while the new cataloger assigns an NLM type call number and MeSH. Other types of material that lend themselves to a team approach are: analyzed series classed together, and non-Roman alphabet materials. New catalogers also have input into redesigning workflows, implementing new procedures, reengineering, etc. They are actively encouraged to take the initiative in putting forth their ideas and turning them into workable products within and outside the department and division. New catalogers often participate in library-wide committees and task forces, giving them a chance to interact with colleagues in other specializations.

Trainers of new catalog librarians at UIC have noticed that certain areas within cataloging and classification cause problems and confusion. The serial versus monograph issue is one such area. Cataloging rules within AACR2r can be obtuse and hard to understand. Rule 21.1B2 (Main entry under corporate body) is one example. The hierarchy for government bodies and cross-references needed also causes confusion (Rule 24.19: direct or indirect subheading). The series area is also problematic. Choice of entry is especially thorny in cataloging of conference proceedings and uniform titles. Subject analysis has to be developed over time, with guidance from the trainers. New catalogers have expressed difficulty with: the exact placement of elements within a subject string, free-floating subdivisions, and geographic subdivision. Construction of a call number in the Library of Congress classification schedule (LC) may cause confusion, especially the social sciences (H), literature (P) and applying the relevant tables. Perhaps teachers of cataloging in Library schools should stress these areas.

Librarianship education has been studied at the national level. Among the recommendations of the Congress for Professional Education, under the fifth area of concern, “Continue the Dialogue between Library and Information Studies Educators And Practitioners” was the following:

5.4. Develop mechanism(s) to provide mentoring throughout one's career (including pre-graduate degree).[10] Recognizing the need for a structured program of mentoring for would-be catalogers, the American Library Association, ALCTS Division, Committee on Education, Training, and Recruitment for Cataloging is developing a national network of experienced catalogers who will be matched up with library school students aiming for a career in cataloging. Large university and research libraries (including the UIC Libraries), major public library systems, the national libraries and major special libraries have been invited to participate. U.S. schools offering an ALA certified Masters Degree in Library Science have been asked to partner this effort. Valuable research will likely result from such mentoring programs.

In this case study, the authors used the questionnaire method. Participants were requested to answer a series of questions via electronic mail. Their responses were tabulated and analyzed. This exercise gave us valuable insight into the relation between cataloging course work and on-the-job training. While four out of our six respondents (66.66%) simply answered our questions, two (33.34%) also added comments. One respondent provided an especially insightful observation: “I chose a library school that emphasized theory and history, two things that we often do not have time for in our work, and which the knowledge of, can inform the practical. I am not sure any classroom could have taught things I learned in the workplace”. This brought home to us very clearly that education and training each have their unique place in a cataloger's

life--one complements the other. Nor does learning ever stop. At UIC, we have heeded the advice contained in the ALCTS educational policy statement: "Libraries should provide guidance, especially for novice librarians, in continuing education and the training needs of both the librarian and the library, and should provide opportunities for librarians to grow and advance." [11] We provide opportunities for continuing education within the institution as well as beyond it. For example, the UIC Libraries Systems Office offers training in software packages etc., while the statewide network, ILLINET provides workshops on various topics. On-line courses, pre-conferences, in-house updates: all these and more ways of keeping up with new developments in cataloging are utilized.

Mentoring of new LIS graduates is beneficial to mentors and protégées. More than a decade ago Cargill said, "Mentorships benefit the profession, libraries, and individuals. They hasten career development, promote networking and link generations of leaders." [12] The profession needs new leaders to take the place of those who are about to retire. Mentoring is the answer to this problem. In the opinion of Munde, "If academic libraries assumed responsibility for the recruitment and career advancement of their employees.. they could assist in rejuvenating the ranks of academic librarianship and meet their coming workforce needs". [13] Although UIC does not have a formal mentoring program in place, informal mentoring takes place between various members of the library faculty. In a survey of 122 ARL libraries, 21 have formal mentorship programs. Although informal, mentoring at the UIC libraries has the same goals as those of formal programs: "Delivering guidance or advice for reappointment, tenure and promotion ...enhancing knowledge about the library's culture, giving assistance in preparing a vita or dossier, supplying information about campus culture, and providing research direction." [14] By instituting the "Fridays only" and Residency programs, the UIC Libraries

have been meeting workforce needs and rejuvenating the ranks of experienced academic librarians.

Within the profession, the importance of cataloging cannot be over emphasized. Even if they do not work in a traditional “Cataloging” position, librarians need to have an understanding of the principles involved in bibliographic control. After surveying academic library practitioners in both technical and public services, Letarte et al. concluded that, “Basic cataloging education continues to be valuable for all entry-level academic librarians.”[15]

Libraries and librarians have a unique role to play in society. Gorman has commented, “Libraries have a duty to preserve and make available all the records of mankind. That is a unique burden. No other group of people has ever been as successful in preserving the records of the past and no other group of people has that mission today. In addition, librarians are unique in having created the complex architecture of bibliographic control and, thus, making all that recorded knowledge and information freely available. Empowered by technology and inspired by the vision of Universal Bibliographic Control, we have made the efficiency of bibliographic control available to all and stand poised to bring electronic documents into that grand scheme”[16]. In order to come closer to the goal of universal bibliographic control, well trained catalog librarians are vital. Hill and Intner have noted that, “Catalogers of today need the entire arc of the pendulum, from theory to practice, and all points in between.”[17]. At UIC, we have attempted to cover this arc and prepare new LIS graduates for a career in cataloging.

The authors hope this case study will aid cataloging trainers in shaping future residency programs. It may provide a useful model for training new graduates and transforming support staff into catalog librarians. Further research will investigate two-year LIS programs with a built-

in practicum, versus the traditional library science degree programs, to determine how useful a cataloging practicum is for new graduates.

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APPENDIX

Questionnaire

1. Have you taken any of the following classes (or similar ones) in your LIS school:

- 1) Advanced Cataloging and Classification ___
- 2) Analytical Bibliography ___
- 3) Automation ___
- 4) Bibliographic Organization ___
- 5) Cataloging and Classification ___
- 6) Classification Systems ___
- 7) Collection Development ___
- 8) Indexing ___
- 9) Organization of Special Types of Materials ___
- 10) Special Problem and Policies of Library Cataloging ___
- 11) Subject Analysis and Search ___
- 12) Technical Services ___
- 13) Other (please list any class you think is related to your cataloger position and has not listed here):

2. Based on your work experience after graduation, which aspect in classes have been most useful to your cataloger position:

- 1) Advanced Cataloging and Classification ___
- 2) Analytical Bibliography ___
- 3) Automation ___
- 4) Bibliographic Organization ___
- 5) Cataloging and Classification ___
- 6) Classification Systems ___
- 7) Collection Development ___
- 8) Indexing ___
- 9) Organization of Special Types of Materials ___
- 10) Special Problem and Policies of Library Cataloging ___
- 11) Subject Analysis and Search ___
- 12) Technical Services ___
- 13) Other (please list if possible):

3. What aspects of your work were not covered in your classes:

- 1) Cataloging serials ___
- 2) Cataloging visual materials ___
- 3) Cataloging music ___
- 4) Cataloging computer files ___
- 5) Cataloging documents ___
- 6) Cataloging rare materials ___

- 7) Cataloging electronic resources ___
- 8) Familiarity of cataloging tools ___
- 9) Familiarity of cataloging rules ___
- 10) Methods of searching some databases:
 - OCLC ___
 - Local cataloging system ___
 - Search engines ___
 - Other ___
- 12) Other (please list if possible):

4. What have you learnt more on the job:

- 1) Cataloging serials ___
- 2) Cataloging visual materials ___
- 3) Cataloging music ___
- 4) Cataloging computer files ___
- 5) Cataloging documents ___
- 6) Cataloging rare materials ___
- 7) Cataloging electronic resources ___
- 8) Familiarity of cataloging tools ___
- 9) Familiarity of cataloging rules ___
- 10) Searching on different database:
 - OCLC ___
 - Local cataloging system ___
 - Search engines ___
 - Other ___
- 11) Other (please list if possible):

5. What courses (non cataloging- related) would have helped you on your professional work:

- 1) personnel ___
- 2) Library administration ___
- 3) Research methodology ___
- 4) Computer related classes ___
- 5) Library systems ___
- 6) Reference ___
- 7) Grant writing ___
- 8) Other (please list if possible):

6. Did the LIS school experience help you in building up your professional career in any of the following aspects:

- 1) Connection with professional associations or groups ___
- 2) Research methods ___

3) Knowledge of publishing in professional journals ___

4) Others (please list if possible):

5) None ___

** If you were working in a library while taking classes in a library school, please answer the following questions:

1. Did the classes you were taking in the LIS school have an immediate effect in improving your daily work or other skills during the time you were in school? Yes ___ No ___

2. If Yes, it improved you in:

1) Searching method ___

2) Understanding more of library work ___

3) Computer technology ___

4) Other (please list if possible):

Educational Resources On Supernovae For Children

James T. Struck BA, BS, MLIS

James T. Struck is a Reference Librarian at Roosevelt University and Library Specialist, Illinois Institute of Technology (IIT).

The National Science Education Standards (1996, National Academy Press) suggest mention of objects like the “sun, moon, stars” in grades K-4 and element formation in grades 9-12. Children’s librarians and some astronomy librarians should know about some of the resources for children on supernovae not only because supernovae are critical to higher element formation, but also to educate others about the universe’s expansion and stars.

In addition, basic bibliometrics on these resources yields lessons on the importance of using many indexes, the pattern of literature for children on supernovae, the types of resources on supernovae, and the scattering of resources/information for children on supernovae.

Method

Educational resources for children on supernovae were collected in many forms—

1. Books,
2. ERIC Reports (print resources on education),
3. Internet Sites,
4. Citations for resources from databases like the Astrophysics Data System, Kid Quest and Junior Quest (Proquest Databases), World Cat (a First Search database), Google.com, and the ERIC (Educational Resources Information Center) database. Different search strategies were used like browsing book shelves, using databases (ERIC, Library Literature, ADS, World Cat, etc.), asking others for help, using Internet search engines, searching through

websites (that is, looking at the links in websites), and looking at Science [News@NASA](#) email. The materials were read and the following results were determined.

Results

Internet sites for children on supernovae have some better features than print like

1. Links to other sites
2. Affiliation with NASA and their experts
3. More current data
4. Comments/Feedback Sections

There are still incomplete or inaccurate Internet sites out there. (See the Inaccurate Site on Supernova Remnants below)

Despite the wealth of information on the Internet, print sources are still important. The print sources—like an ERIC report from 1976 that gives the history of human observation of supernovae, discusses old theories about supernovae like carbon detonation and asks why the Milky Way does not have more supernovae or a children’s book which asks about the color of a 1987 supernova—contain valuable lessons and questions not in the internet sites in the same way. There are incomplete/inaccurate print sources too (like one book that talks about a “star in existence since the creation of the universe”), but still part of my point is that a virtual library without some of these print sources would lack important materials. Weeding old material should be done with caution. Also, old data (like the 1976 ERIC document) is still important.

In addition, a search of the Children’s Catalog (1909-2000) yields the lesson that some indexes are not comprehensive. Only two books—one in 1991 and one in 1986—are cited under the term supernova, while, actually, at least four other books on supernovae were published over that period.

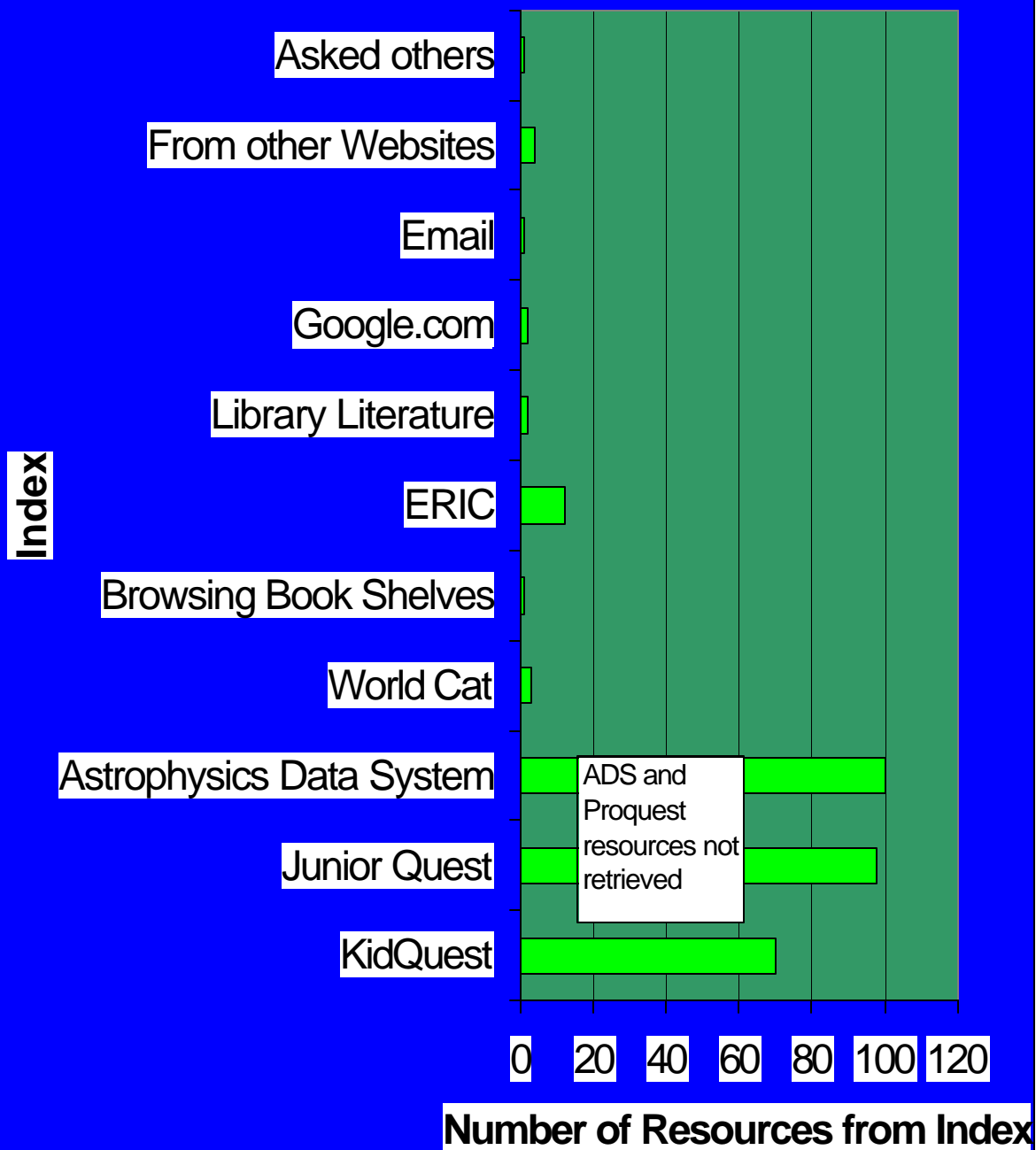
In the book Astronomies and Cultures, it is said that ancient elites used prediction of astronomical events as a display of power and prestige. (Clive Ruggles and Nicholas J. Saunders, Astronomies and Cultures. Niwot, Colo: University Press of Colorado, 1993) Besides being helpful teaching tools, children's resources on supernovae also function in some way as a display of the authority of elders as well.

Basic Bibliometrics

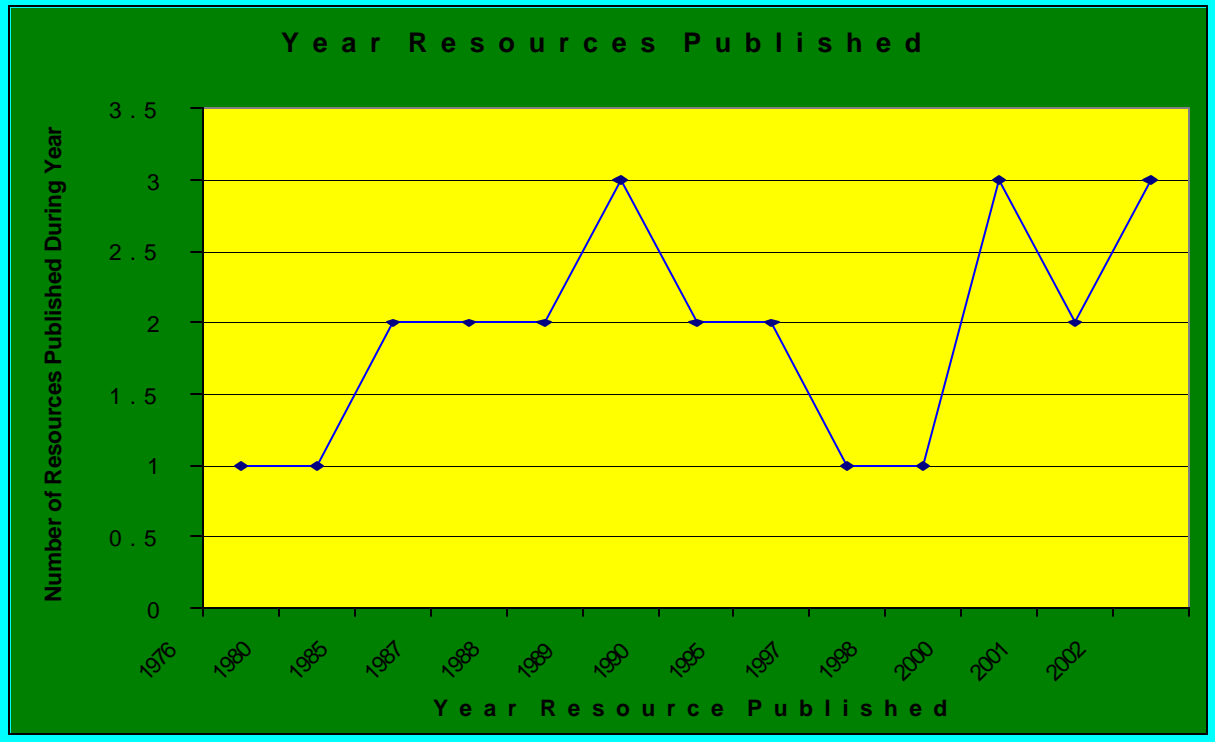
Adult articles on supernovae literature (Virgil Diodato's 1991 article "Supernova 1987A: A Case Study of the Flow of Information in the Literature of Astronomy and Physics" and David Stern's 1989 article "Supernovae: A Guide to the Literature") were reviewed. Similar to these articles, some basic bibliometric analysis was attempted.

1. The "Indexes Used" graph shows that a wide variety of indexes need to be used to get all the information on this topic. ADS, Kidquest and Proquest had many resources/citations, but I did not retrieve them. ADS actually had over 16,000 hits for the search terms "educational (materials or resources) and children and (supernovae or supernova)". Google.com actually yielded over 550 hits for the search terms "educational resources for children on supernovae", but only two were retrieved for this poster. Many other Google.com sites may have been very helpful, but I did not use them all because of time limitations.

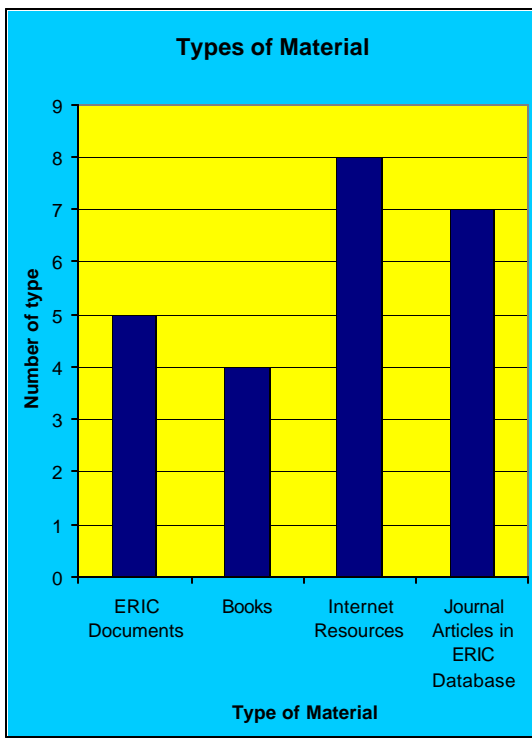
Indexes Used



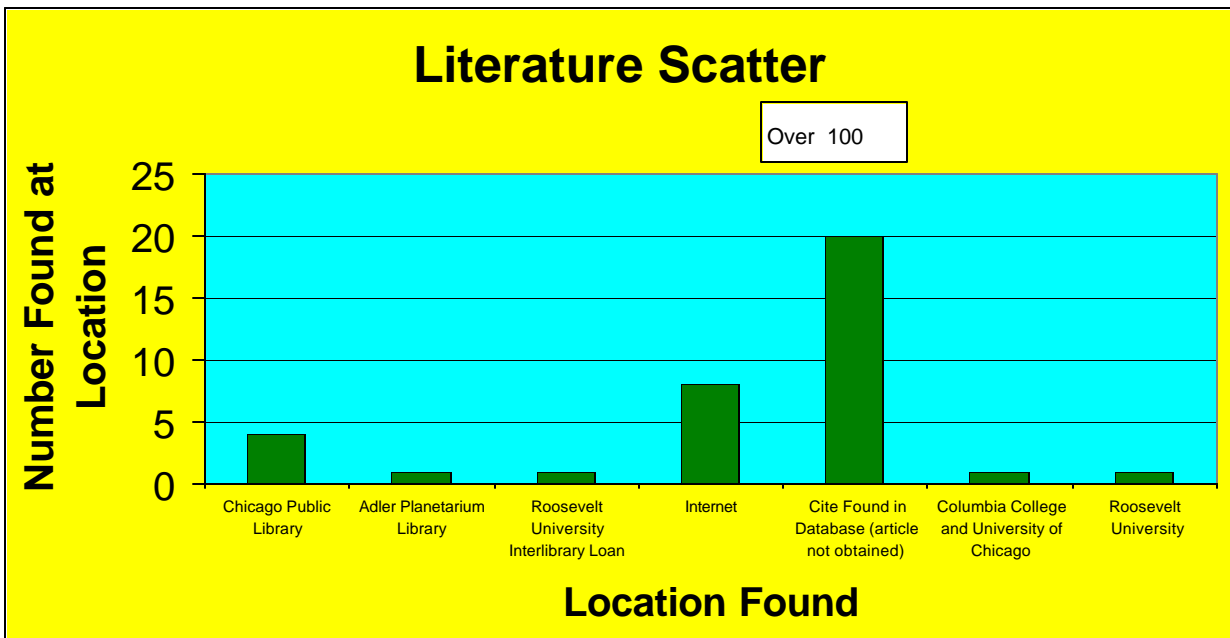
2. The “Year Resources Published” graph shows that 19 of 25 resources were from after 1987. Supernovae 1987A was possibly an important event for this type of literature.



3. The “Types of Material” graph shows that the literature I retrieved was balanced between many types of resources.



4. The “Literature Scatter” graph shows that the Internet is a very significant resource for this type of information. Citation indexes obviously are very important too. Interlibrary loan is important, but less important to someone living in a city with many libraries nearby. Information can be scattered and still retrieved, if one lives in a city with many libraries nearby.



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The author would like to thank Dr. Geza Gyuk of the Adler Planetarium for reading the initial abstract, Patty Cloud of Roosevelt University for reading an early draft, and the Library and Information Services in Astronomy IV (LISA IV) conference for providing a reason to work on the Project.

Virtual User Instruction at the University of Illinois Fire Service Institute Library: Producing a Web-based Training Video for Illinois Firefighters

Lian Ruan, John Paul, Jeff Cunningham and Sarah Windau

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In December 2000, the Illinois Fire Service Institute Library (IFSI Library), University of Illinois at Urbana-Champaign, received an LSTA (Library Service and Technology Act) 2001 grant award from the Illinois State Library, a division of Secretary of State, entitled "Libraries in the 21st Century - Developing the Distance Learning Library Services for Illinois Firefighters: an Integrated Information Service with Online Firefighter II Certification Program." The impetus for the initial and active development of the IFSI Library's integrated distance learning services was the establishment of the Institute's online Firefighter II Certification Training Program. The Library immediately realized the need for planning and developing adequate library services to support the new academic program. The LSTA grant provided funding resources for this successful expansion of library services. The grant project was to develop creative and integrated distance learning library services for the online Firefighter II Certification Program, the first American online Firefighter II Certification Program. In addition to many accomplishments, including a new Firefighter II Web site, enhanced IFSI Library online services, the project was able to hire a professional producer, the University's VideoWorks at WILL-TV, to produce a Web-based training video (in VHS video and CD-ROM formats as well) for the Library's virtual user instruction program.

Why a Web-based Training Video?

The Fire Service Institute is the statutory State Fire Academy in Illinois. The Institute's central objective is to prepare and help Illinois firefighters, and other emergency services providers, develop the core skills required to effectively meet the emergency fire service needs of their communities. For fire service in Illinois, there are 1,293 fire departments and 42,675 firefighters with a 20% turnover rate. In 1997, under new Vision 2000 for the Future, the Institute's goal is to find the best ways to reach every firefighter with the training, education and information he/she requires each year. The IFSI Library, built in 1990, is the only dedicated fire science library in Illinois and its Outreach Program was initiated in 1998 to provide no-cost library services and information programs to firefighters and interested citizens.

The LSTA 2000 Full Year Grant, entitled "Internet Outreach to and Training of Illinois Fire Service Personnel, Public and Community College Librarians for Electronic Access to Fire Safety Information," was awarded to the IFSI Library in January 2000 from the Illinois State Library, a division of Secretary of State Office. The project has allowed the Library to build its Web structure and online systems. It has also helped launch a statewide effort to provide an Internet Outreach Training Program to and training of Illinois fire service personnel, public and community college librarians for electronic access to online fire safety information. During the last four months of the grant, the project was able to reach 64 city locations, 201 sites with 79 online training workshops from north of Freeport, down to south of Carbondale. However, due to the shortage of library staff, funding and time (solo librarian with a few student employees after the grant ended in September 2000), this kind of extensive training schedule and travel is almost

impossible to keep up all year around to reach every firefighter. Other three statewide surveys in fire service also showed that shortage of discretionary time was identified as the number one reason firefighters are unable to receive certification training. For volunteer firefighters, full-time employment, family, and other major commitments are the primary reasons for their inability to attend training courses. The surveys' results clearly indicated that most of the firefighters would find it difficult in attending training workshops. Throughout Illinois, the fire service experiences an annual turnover rate of 20%. The size (700 square feet, located in Champaign) of the library facility also contributed to users' difficulties in locating materials. Consequently, remote firefighters have experienced some frustration in their initial attempts to search for materials and obtain them from the IFSI Library. If the IFSI Library is to develop and maintain firefighters as active and competent library users in Illinois for the 21st Century, it is necessary to create and implement an innovative user instruction service to meet the challenges and reach out potential users.

The development of the Web-based technologies has greatly increased the electronic options that libraries have available for library services and virtual user instruction. The ability to reach the widely dispersed remote firefighters became possible with electronic access to the IFSI Library service. The LSTA 2000 Grant project has developed a fully electronic infrastructure for the purpose of broadening and enhancing access to the IFSI Library. The IFSI Library is using the World Wide Web as delivery mechanism with a Web-based search engine for accessing the Library services. Firefighters with a three-shift working schedule, using a wide range of computer operating systems and browsers, can access Web-based information 24 hours a day, seven (7) days a

week, i.e. anytime they desire. The Library continues to respond to interlibrary loan requests for IFSI library materials that are submitted during regular business hours. The Library also provides direct delivery service upon an emergency request to accommodate the remote user's immediate need.

As library training turns increasingly to Web-based instruction, the IFSI Library considered Web-based video to be yet another way the Library could be visible and accessible to firefighter users wherever and whenever they needed services from the Library. Today's firefighters are comfortable with audiovisual formats and intrigued by the Internet. With well-crafted content, their interest can be engaged by Web-media projects. What if the Library could provide a self-paced tutorial video on the Web so that Online Firefighter II students and other firefighters can watch it on the Internet anytime they desire? The video would reduce the need to ask for directions and instruction. What if firefighters could have access to the instructional video whenever they needed it? Having a virtual user instruction program on Web-based video would reduce user frustration and long waiting to learn how to use and access the Library. Web-based video is available on demand, an attribute important to any self-directed instructional program. It could reach an unlimited number of users at any given time.

By providing basic information to large numbers of users via this medium, the IFSI solo librarian and her student staff could concentrate their efforts on providing in-depth and one-on-one instruction and assistance.

With limited space and staff, it was not wise for the Library to acquire its own production equipment for any video production projects. The amateur efforts would be unsatisfactory and result in long delay. It would be better to hire professional production

assistance. Thus, the Library decided to apply for a grant. The grant award made it possible for the Library to hire VideoWorks at WILL-TV, University of Illinois at Urbana-Champaign. The Library chose VideoWorks because they previously produced a video for the Institute. Both the Institute and VideoWorks provided equipment and technical support to the Library project. It was found that the Institute server had adequate storage capacity and could handle anticipated access. VideoWorks provided their own in-house video and audio production equipment. VideoWorks performed videotaping, editing, and encoding/compressing the files. The project team's three graduate students worked side-by-side with the IFSI Librarian and VideoWorks.

The Library believes that the solutions found during the project may hold some promise for virtual user instruction in a special library, especially with the burgeoning number of remote library users and its distance library programs. The experience illustrates how a special and small library like IFSI, even with limited resources and staff, can take advantage of grant and technology to meet a unique user need.

Preplanning Meetings & Writing the Script

To do a cost-effective video, careful preplanning meant that only limited script rewrites and tape retakes were necessary. Preplanning proved to be the most challenging yet crucial step to accomplish the project successfully. Careful analysis of instructional needs, thorough conceptualization, and thoughtful planning of a possible project like ours are most important for a successful end product. VideoWorks defined three major tasks associated with the project. Task 1: produce a VHS version, Task 2: produce a CD-ROM version, Task 3: produce a Web version downloadable from the IFSI Library Web site.

While writing the grant proposal, the IFSI Librarian met the WILL-TV Station Manager to discuss budgetary issues and requirement. As soon as the grant was awarded, the Library and VideoWorks reached and signed a Production Agreement with a deadline to deliver the product by June 30, 2001. In addition to Web-based video, 250 VHS videotapes and 30 CD-ROMs would be produced as well. All formats would have reproduction permission for training purposes. The project team started to have a series of preplanning meetings every week before shooting and production began.

From the producer's experiences, VideoWorks prepared guiding questions to answer at the planning meetings. "What do we want to say (content), to whom (audience), and for what purpose (objectives)?" For content, VideoWorks wanted to create a content outline containing the points *essential* to communicate to library audience, both individual and group. They wanted to understand who the library audience is and come up with a perceptive profile of the target audience (firefighters and general public, for example). For objectives, they asked what the Library expected the video to accomplish and what would the viewers do after watching? They asked the length of running time, estimated the number of interviews, their approximate length, and geographic location, and whether they were to be interior or exterior. For the cover video (the video images shown during the narration), they estimated the number of different locations where illustrative shots would need to be taken, the length in minutes needed, geographic location and additional constraints on time and date of shooting. For graphics, they wanted to know what types of graphic elements the Library envisioned and gave examples from TV/videos that have been seen.

After 5-months of hard work and careful planning, the team developed the script, which was based on the guiding questions and the “IFSI Library Online Public Access Catalog Training Manual, 2nd edition” (written by the LSTA 2000 grant project team). The script started from an original draft of 7 pages and expanded to the final version of 76 pages. VideoWorks wrote the script with the Library providing ideas, structure and content. The Library also trained VideoWorks producers how to use the online system and they made interlibrary loan requests from the libraries where they reside to understand how the interlibrary loan delivery system worked.

The final script includes an introduction and 13 separate modules on how to navigate the Library Web site, how to use FireTalk (online thesaurus), online courses, interlibrary loans to obtain materials, and how to use the Listserv. Specific examples were given in each module. Initially, the team considered two different versions – one for any public library or on-line user, and another course specific version for online Firefighter II students (and other online course students) that would be password protected. The team dropped the idea after the Library developed a “sample tour” that would let the public view the main structure for online Firefighter II course Web site, but avoid having them use a password. Based on the workshop findings and Internet-user behavior, the team decided that the video presentation should be brief, because remote users might exit uninteresting or difficult programs with the click of a mouse. Therefore, the finished product would consist of several segments (13 modules), each three to four minutes long. Eye-catching graphics and direct, simple-to-understand narration were essential.

In May, VideoWorks did a Powerpoint demonstration to the Institute administrators and project team to inform the progress and content of the video. VideoWorks made some changes to the script based on feedback. Pauline Cochrane, Professor Emeritus from the University Graduate School of Library and Information Science, also reviewed the proposed script and made some excellent suggestions, which changed the sequence and fundamental structure of searching Library Online Public Access Catalog. By starting the search with FireTalk (online thesaurus and a search aid), users can find appropriate terms to speed up the search, and then continue to Popular Subject Search (users only need to click the pre-selected and grouped subject terms), then Subject, Title, Author, Multiple Fields Search. The project team took the suggestions and changed the OPAC structure and script.

After finalizing a succinct, descriptive script, VideoWorks finally was ready for production.

Producing the Video

With the script in hand, it seems producing the video was relatively smooth. In addition to the Institute and IFSI Library, the project team picked up video of various locations in different regions of the State. The Library helped coordinate participants and schedules. VideoWorks traveled to the sites to record video footage of people and scenes. Local firefighters, fire chiefs and libraries were supportive and cooperative. The videotaping provided convincing testimonials about IFSI Library programs and interlibrary loan services. Director Richard Jaehne, IFSI Librarian and Principal Investigator Lian Ruan and her staff, Firefighter Marvin Roderick, Fire Chief Richard Page, Instructor Richie Valenta and Brian Brauer, and Jerry Heiser, an architect,

participated in the production. So did the Peoria Fire Department, Centralia Regional Library District, Centralia Fire Department, Peoria Public Library, Chicago Public Library, College of Dupage Learning Resource Center Library, ABRIS Architects and Planners, and Chicago Fire Department.

The next step was to merge videotaped scenes with narration. Director Jaehne was videotaped on-camera at the IFSI. Jaehne also recorded an audio track at WILL-TV facilities. Using their digital editing equipment, VideoWorks produced time-coded copies of the “rough cut” as the first draft of the video. It allowed IFSI administrators, the Librarian and the rest of the crew to propose scripting or editing changes at specific “time-coded” points in the video. Some music was also added to the opening and closing of the video.

Technical Challenges & Considerations

For content of the video, the general considerations included priority of visual elements, and screen text/graphics to reinforce the narrator sound effects for Web page actions. There were also production technical considerations for the double size mouse pointer. There were three different delivery vehicles: 1) via VHS videotape, with chapter breaks for instructor to pause tape; 2) via digital, self-contained segments/short duration (Web video); 3) CD-ROM, self-opening with html interface.

During production, the project team faced several technical challenges. The script was mainly based on the Library Web structure and ability. While VideoWorks was writing the script and preparing for production, the project’s computer student assistant worked intensely with the IFSI Librarian to set up a new Online Firefighter II site, redesign and update every library Web page, search structure, search order and Web

display. However, updating may be necessary in the future. The project team spent much time thinking about this issue, because updating the Web page would mean the training video would not match; the project team thought through many options that would avoid updating the video, but would maintain enough flexibility to change the contents of the Web site. Careful planning can mitigate this problem, and it became crucially important to consider when deciding what content to deliver via video on the Web.

There was a problem when capturing the Library Web pages, in that the Web display and search index button did not appear in the right way. WILL-TV Station computer technicians and the IFSI Information manager worked together to solve the technical problems, so that production could proceed smoothly.

Reviewing, Testing & Editing “Rough Cut”

Blending the videotaped scenes, Web screens, and the narration put the final touches on the project as a “rough cut.” Once completed, WILL-TV Station delivered the rough cut to the Library for final reviewing and editing. The Institute administrators, project team, and faculty attended the reviewing and testing meetings. An on-screen time code display made reviewing and editing easier by knowing exactly where to find a particular segment of the script.

The Library and VideoWorks producers chose to include background music only at the start and end of the video. The Library had deliberately chosen not to have continuous narration in order to provide transition between scenes and allow the viewer time and freedom to jump between modules and digest the information the way he/she prefers. Thus, the modules would be broken into each individual file for the Web version.

The “black” screen left in the end of each module was needed so users would know each segment was completed. At the meeting, Director Jaehne suggested the on-line Web-version only has audio with still photos. The IFSI Librarian suggested posting script (text) on the Web for those users with no audio on their computers. After editing the rough cut, the final version of the video was delivered in August, two months after the deadline. It was now time for VideoWorks to digitize the video and mount it to the Web.

Streaming Media vs. Progressive Downloading

Streaming media on Web sites is widely seen in commercial applications, news organizations’ streamed video and audio, and clips of music and film by entertainment companies. In educational settings from primary schools to universities, one of the most common applications in higher education are the distance education program. Classroom lectures and demonstrations are obvious candidates for streamed presentations. The Institute’s Online Firefighter II Certification Program has been experimenting with video-streaming technology since 1999.

Initially the project team thought of using streaming media to present the video. Karmen N.T. Crowther and Alan Wallace point out that streaming media is an audiovisual presentation delivered via the Internet, that may be viewed while simultaneously being downloaded to a user’s computer. It differs from other network delivery systems by delivering a continuous stream of video after only a few (typically 10-30) seconds for initialization. A combination of a client (player), a server, and an appropriate network protocol is needed to stream media. Typically, a click on a Web link will activate delivery from the client. After receiving a few seconds of video sufficient to create a buffer, the client begins playing the media stream in the foreground while continuing to receive and

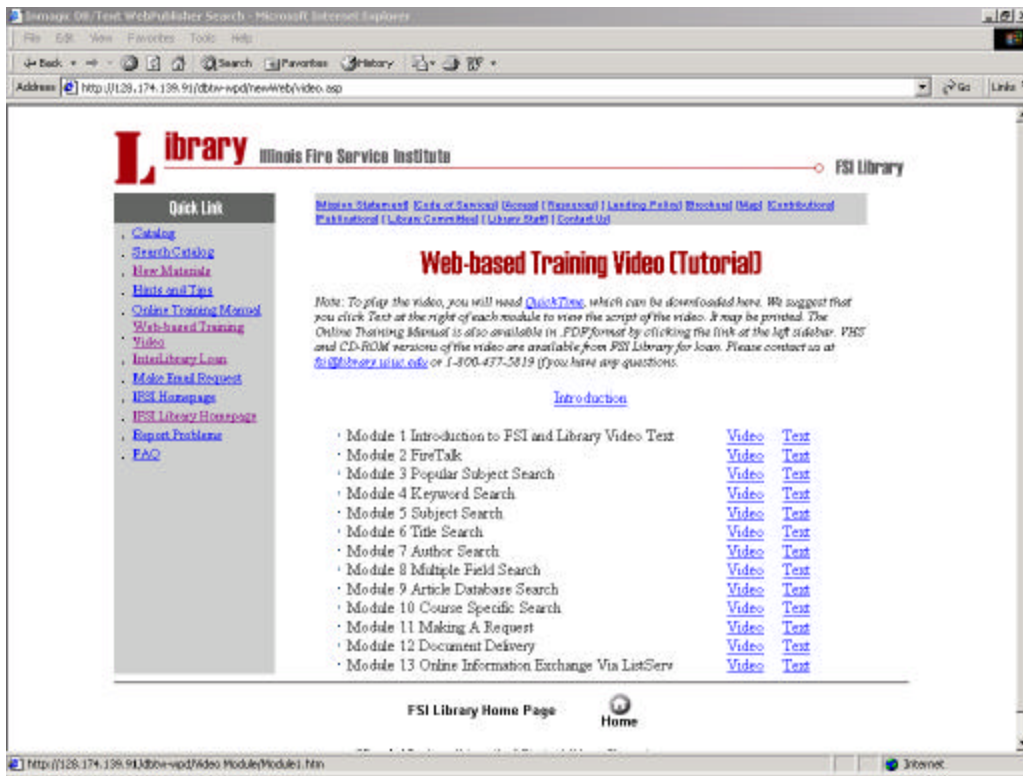
buffer new data from the server in the background. The stream may be a few minutes or several hours in duration. Both live and prerecorded media may be streamed.

Despite that libraries have been among the first on many campuses to use new Web-based technologies, the technology of streaming media is not widely utilized.

Unfortunately, the IFSI Information System Manager believed that streaming media was not the appropriate solution after seeing the digitized video file. Without knowing how many users would access and view the large file on the Web, he was afraid the swapping visits might put the internal computer system in serious jeopardy. Although products continuously improve, streaming still works best on high-speed Internet connections not often found in private homes. Based on the library statistics and user profile, most of users would not be able to use high-speed Internet connections in their private homes, small libraries, and fire stations via a phone line. Streaming media was proved not yet the optimal solution.

Delivery on the Web

After review meetings, the project team decided to use the method of progressive downloads. To reduce file size and speed up downloads, 13 modules would be mounted on the Web as separate files and all pictures absolutely needed would be still. There would also be text and video files. Text would help in case the user has no sound capability. The team also chose QuickTime as media software technology because, after 10 years of widespread use, it is an industry standard. QuickTime software allows movies to be downloaded and played. It is also inexpensive, viewer plug-ins is free, and it is available for both Mac and Windows platforms. The Library added instructions and a Table of Contents on the Web.



The VHS and CD-ROM formats were entitled “IFSI Library Online Training Video,” the Web-version “Web-based Training Video (Tutorial).”

Outcome

Any or all of these video applications would be useful in teaching distance education students and remote users how to do library research. Even in-house training for library student employees has done effectively with the video. The Library users reported that using the Web-video for their basic instruction allows them to view the orientation and self-tutorial day or night, whenever appropriate or convenient. They found it easy to use and access. The video has a brief introduction to the Institute and the Library and serves perfectly as a public relations tool. It shows the facilities and services available to prospective users, or anyone interested in fire libraries. VHS format also would be used successfully in library instruction, especially for multi-section classes with similar

assignments. CD-ROM formats would be another optional for individual use. The Library anticipates using the Web-based video as library instruction for remote users, online distance learning courses students and local library staff. Thus, the library's live service can be spent on more specialized needs.

The Web-video has added a new, valuable dimension toward satisfying the virtual library training needs of Illinois firefighters. Using this type of delivery model, the Library is able to provide better services to Illinois firefighters, help improve the ability of fire departments to better meet the public safety needs of their communities, and protect citizens from the dangers of uncontrolled fires and other hazards. The Web-video has linked Illinois firefighters in remote and different locations and allows them to learn, access the Library services and resources, and participate effectively in the existing statewide interlibrary loan delivery system. It has also provided the organization, expertise and encouragement for partnership among the IFSI Library, public and community college libraries to help improve information sharing in fire safety throughout Illinois.

Note:

1. The Illinois Fire Service Institute Library's video may be viewed at <http://www.fsi.uiuc.edu>, click library, click Web-based video.
2. The QuickTime viewer plug-in is available at <http://www.quicktime.com>. It provides overview, including downloads of their products and technologies, and information for individuals interested in learning to make and deliver video on the Web. QuickTime Developers' Information offers conceptual as well as technical information for using QuickTime to its fullest capabilities. Find more information at <http://devworld.apple.com/quicktime/>.
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Research Libraries News, Association of College & Research Libraries, March 2001, Vol. 62, no.3, p.280-285.

Guidelines for Illinois Libraries Manuscripts

The purpose of *Illinois Libraries* is to publish articles of general interest to library staff and library governing officials in Illinois and elsewhere, representing all types of libraries and library consortia.

Every effort is made to provide a balanced treatment of library-related issues. Articles are solicited that will address the interests of the publications' audience. Individuals are also encouraged to submit unsolicited articles for consideration. Articles are not limited to Illinois contributors.

Length: Articles should be no less than five and no more than 20 double-spaced typewritten pages on white 8 1/2 x 11" paper.

Style: For uniformity purposes, all manuscripts should follow the Associated Press Stylebook, if possible.

Graphics and Illustrations: All graphs, illustrations and photos must be camera ready. Original copies, apart from the manuscript, should be included for all graphs and illustrations. THIS DOES NOT INCLUDE TABLES.

Author Information: The article should include a title and information about the author: author's name, position and where position is held.

Footnotes: Footnotes should be listed at the end of the article instead of at the bottom of each page.

Editing: The editors reserve the right to make minor copy-editing changes.

Acceptance of manuscripts: The Illinois State Library reserves the right to accept or reject articles.

Number of copies: One original and one photocopy of the manuscript should be submitted. Additionally, one copy on a floppy disc (Word or WordPerfect format) is needed. Normal style, Times New Roman font, 12 pt. font size.

Manuscripts should be submitted to:

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