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MLA

# Special Supplement
# MLA 2001 Abstracts

MLA **MEDICAL LIBRARY**
**ASSOCIATION**
*An association of health information professionals*
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**To Boldly Go Where No Information Has Gone Before**

**International Cooperation and Public Health/Health Administration Sections**
Sunday, May 27, 2001, 4: 00 p.m.–5: 30 p.m.

## To boldly email...

**Eve Hollis, B.Sc.,** manager, Library Services, NOC National Health Service Trust, Oxford, United Kingdom

Purpose: This paper will report on the use of email lists and a connected Website to educate and update surgeons around the world.

Setting: The email list Orthopod and the subsidiary lists—Arthroplasty, Hand, Sportsmed, and Spine—were started from a discussion at the AAOS meeting in 1996. They were hosted by the Mailbase at Newcastle University in the United Kingdom and funded by JISC. The Orthogate project which has developed from the content of the lists.

Brief Description: Since the launch of these email lists in 1997, the membership has risen steadily and comprises surgeons of all grades from all around the world. From the discussions on these lists a Web presence, known as Orthogate, has grown and is now the premier resource online for orthopaedists. With the immediacy and currency of email, clinical questions can receive expert answers in a very short time. Surgeons faced with conditions not normally seen in their location can have immediate help from other surgeons who see the conditions routinely. With the development of WAP technology, it will be possible to access the list anywhere at anytime without having to go to a desktop or laptop computer. In situations where computer facilities are not available this could be a most useful service.

Results: A first-class online resource built by surgeon volunteers, and available to all surgeons all over the world. There is rapid dissemination of surgical skills, techniques, and information to all members.

Evaluation Method: The visitor counter and feedback through the lists. We monitor the members by country and qualifications and the continued interest in developing the site through suggestions made on the list.

## Development of a statewide digital health information system in Michigan

**Harvey R. Brenneise,** library director, Michigan Community Health Education Library, Michigan Public Health Institute–Okemos; and **Ellen Marks,** library director, Shiffman Medical Library, Wayne State University, Detroit, MI

The AccessMichigan Electronic Community Health Information Initiative (AMECHII) (www.mphi.org/AMECHII/) is a response to a recommendation of the Michigan Information Technology Commission Report, "we recommend improved access to high-quality health care information for all Michigan stakeholders." The desired outcome is ubiquitous and universal access to high-quality, timely, reliable, and valid health information for health consumers and practitioners regardless of geographic location in the state, many of whom are currently unserved or underserved. This project is truly multi-type, including public, general academic, academic health science, hospital, and special libraries. The objectives include extending the current network infrastructure to serve all libraries and to negotiate statewide licenses for core and extended electronic collections, including reference materials and serials, recognizing the economic realities in American hospitals and libraries and the need for economic viability of publishers. This pilot project, if successful, will be used as a model for other statewide information projects or collaborative international projects designed to team librarians in developed and developing nations in planning and implementing information delivery systems. The planning process, which will begin with a comprehensive needs assessment, gap analysis, and economic model, will result in the design of a statewide health information architecture/system design and will include economic sustainability and new paradigms for library collaboration and federation in the acquisition and distribution of electronic resources over a wide area.

## Bringing public health information and Internet training to underserved professional populations via the Internet and a portable LAN

**Virginia M. Tanji, AHIP,** librarian, John A. Burns School of Medicine, University of Hawaii at Manoa–Honolulu, HI; and **Sharon L. Berglund, AHIP,** science librarian, Library and Information Services, California State University–San Marcos

Purpose: We report on the HiPHIVE project funded by an NLM Partners in Public Health Information Access grant to conduct a needs assessment, develop a Website, and deliver training to underserved public health professionals. We used a portable LAN for hands-on training. The goal was to help these professionals fully exploit the wide range of resources available on the Internet.

Setting/Participants/Resources: This project was a collaboration between Hawaii Medical Library, Inc., and the School of Public Health Library at the University of Hawaii. The project was funded by a NLM grant. The Hawaii Department of Health, the largest employer of public health professionals in the state, was involved with the project at many levels. Training was conducted on four islands in the state.

Brief Description: A needs assessment was conducted among underserved public health professionals statewide. Results were used to develop a Website that helped professionals search the public health literature, access national and local health statistics, and link to other electronic resources. The Website was launched in November 1999 and served as the foundation for instruction. Hands-on training in urban and rural areas was delivered in the first half of 2000, utilizing a portable LAN with four notebook computers, a hub, and 56K modem. A unique feature was the use of pre-training and post-training surveys to assess whether the training changed searching behavior.

Results/Outcome: The Website provided an excellent basis for training, and the portable LAN allowed for hands-on-training even at rural sites with limited computer resources. More individuals wanted training than could be accommodated, including several from the South Pacific. They were referred to the Website. The portable LAN concept has already been replicated by the Pacific Southwest Regional Medical Library at UCLA. Hits have increased over the year, and the National Library of Medicine's Health Services Research site and the state health department's

site now link to our site. Although survey data show only modest changes in searching behavior, ongoing responses from participants suggest evolving sophistication with the Internet.

Evaluation Method: Onsite training evaluations and pre-training and post-training surveys were analyzed. Website usage statistics were also collected.

## Providing high-quality, knowledge-based information to health care providers in rural areas: the library as a partner in delivering a full complement of telemedicine services

**Jeanette C. McCray, AHIP,** deputy director; **Rachael K. Anderson, AHIP,** director emerita; **Gerald J. Perry, AHIP,** head, Information Services; and **Joan B. Schlimgen,** head, Access Services; Arizona Health Sciences Library, University of Arizona–Tucson

Purpose: To describe the Arizona Health Sciences Library's (AHSL's) role in the Arizona Telemedicine Program (ATP).

Setting/Participants/Resources: The ATP is a multi-disciplinary clinical program established in mid-1996 at the University of Arizona's Health Sciences Center. The state legislature initiated and funded ATP to demonstrate the efficacy of telemedicine in delivering better health care to the state's medically underserved rural areas. The library director is ATP's associate director for information services and on its executive team.

Brief Description: AHSL's collaboration with ATP has focused on: deployment of an Internet portal to facilitate access to health information; successful negotiation of an Arizona Health Information Network (AZHIN) membership for ATP sites providing access to MEDLINE via Ovid and MD Consult; design of ATP's Website; use of its ATM network to deliver live interactive training between Tucson and remote sites; development of targeted consumer health information products; and staging a statewide conference.

Results/Outcome: AHSL's partnership with ATP enables the library to deliver knowledge-based information to health practitioners and consumers in remote rural areas as well as to diverse populations including those along the Mexican border and in tribal Indian communities. There is increased visibility for AHSL throughout the state especially among state legislators and rural practitioners. Health care providers are enthusiastic about their immediate access to high-quality health information. The library is increasingly sought out as a partner in outreach activities promulgated by the university.

Evaluation Method: Currently (September 2000) the program supports thirteen sites and has conducted over 2,000 clinical telemedicine sessions, 4,500 radiology, pathology, and home health sessions and nearly 600 administrative and educational sessions. Use statistics are collected on the electronic resources and services. AZHIN memberships are being renewed. Anecdotally, there is increased demand for access to AZHIN resources, more training desired sooner rather than later, and larger groups including more participation by primary care providers.

## Embarking on the Odyssey: New Perspectives

### Medical Library Education Section
Sunday, May 27, 2001, 4: 00 p.m.–5: 30 p.m.

## An observational investigation of information seeking and use by nurses at work in a non-teaching community hospital: implications for hospital librarians

**Michelyn McKnight, AHIP,** Health Sciences Library, Norman Regional Hospital, Norman, OK

Purpose: Hospital nursing is an information-rich activity; nurses are the largest single group of hospital employees. What kinds of questions arise on the job, and how do nurses choose which questions to pursue? How do they seek answers to these questions? What information sources do they use, and what barriers do they encounter? What are the implications for hospital librarians serving nurses?

Setting/Subjects: Medical-surgical and critical care units in a 250-bed non-teaching community hospital in January and February of 2001. At least ten volunteer registered nurses who vary in shift worked, age, education, gender, and cultural background.

Methodology: The investigator will observe working nurses for four to eight hours at a time, noting their job-related information seeking behaviors and use. After each observation, the investigator will briefly interview each nurse to clarify her observations. Later, she will share field notes and interview transcriptions with all participating nurses and solicit their comments on the accuracy of her observations. The resulting rich data will be analyzed for trends and patterns using accepted qualitative analysis methods appropriate to the data collected. The Investigational Review Boards of Norman Regional Hospital and the University of North Texas have approved this project. Ron Wilhelm and Ana Cleveland are faculty sponsors for this student project.

Results: To be reported in May 2001.

Discussion/Conclusion: To be reported in May 2001.

## Effect of metasite selection on the quality of Web information: a collection development approach to the evaluation of Web-based consumer health information

**Linda Hogan,** manager, Libraries and Archives, Brady Library, Pittsburgh Mercy Health System, Pittsburgh, PA

Purpose: Determine if there is a relationship between type of search engine and the quality of Web-based information retrieved on a consumer health topic, using hypercholesterolemia as an example. Compare certain types of metasites as selection aids for consumer health information.

Setting/Subjects: Two general search engines, Lycos (relevance ranked) and Yahoo (hierarchical classification), and two health portals,

HealthAtoZ (relevance ranked) and healthfinder (hierarchical classification), were used to generate a collection of Websites (508) on the topic of cholesterol.

Methodology: Prospective, causal-comparative. A multimodal approach was used to measure the quality of this information.

Research Questions: (1) How accurate is Web-based information? (Experts evaluated the content collected for this study using a scoring instrument based on the National Cholesterol Education Program guidelines.) (2) How comprehensive is this information on the topic of hypercholesterolemia? (MeSH was used to index the Websites and compare their relative subject coverage.) (3) What is the reading level of this information? (Flesch Reading Ease and Flesch-Kincaid Grade Level were used.) (4) What languages are available to the reader? (5) Is there a significant difference in the quality of information (accuracy, subject coverage, reading level, and language availability) retrieved by the four different types of metasites?

Significance/Conclusion: In addition to answering the five specific research questions above, this study also addresses some of the most pressing questions raised in the health sciences library community. Can the Web replace traditional library holdings in answering consumer health questions? What collection development standards should be used to guide choices of appropriate Websites for laypersons? This study also extends existing knowledge about the assignment of controlled vocabulary terms (MeSH) to Web content.

## Past, present, and future: continuing evolution of the medical informatics curriculum at The George Washington University

**Laura Abate,** reference librarian, Himmelfarb Health Sciences Library, The George Washington University Medical Center, Washington, DC

Purpose: Incorporate feedback from students, a curriculum committee, and librarians' experience into the format, organization, and presentation strategy of "Introduction to Medical Informatics."

Setting/Participants/Resources: Librarians developed and teach a required pass/fail course to first-year medical students. Students learn how to locate and assess information in textbooks, MEDLINE, and on the Web and how to effectively present their research using Microsoft Word, Excel, and PowerPoint. Students also learn about functions of the Internet and concepts of copyright and ethics in an electronic environment. This course is taught as a part of "Practice of Medicine," an umbrella course that teaches students clinical thinking, technical skills, and professionalism. "Practice of Medicine " also includes "Problem-Based Learning (PBL)," "Doctor-Patient Society," and a clinical preceptorship.

Brief Description: Prior to academic year 2000-2001, "Introduction to Medical Informatics" underwent major changes to its format, organization, and presentation strategy. While still taught completely online, the course format migrated from a password-protected Website coded in HTML to Prometheus©, a Web-based course management software used campus-wide. Organization of the course's ten sessions was reassessed resulting in consolidation, an addition, and a new session order. The required work changed from a final project, to a set of tasks to be completed over the course of the academic year. The course's presentation strategy shifted from a learner-oriented model to a more prescriptive format through which librarians provide additional instruction. "Introduction to Medical Informatics" is now taught in tandem with "PBL" in which groups of ten to twelve students investigate clinical, basic science, and psychosocial aspects of medical cases. Individual librarians work with PBL groups, advising and evaluating students as they progress through the task list.

Results/Outcome: This presentation describes the evolution and proposes future directions for the medical informatics curriculum at The George Washington University.

Evaluation Method: Student and librarian feedback and the quality of students' work are used to evaluate this course.

## Searching PubMed to examine the effectiveness of retrieving relevant information about electronic healthcare/health care

**Kui Chun Su,** predoctoral fellow, Health Management and Informatics; **MaryEllen Sievert, Ph.D.,** professor, School of Information Science and Learning Technologies; and **Gabriel Peterson,** predoctoral fellow, Health Management and Informatics; University of Missouri–Columbia

Purpose: To examine the complexity and variability of natural language as observed in using search terms that express the concept of electronic health and how this complexity and variability would influence the precision and amount of information retrieved.

Study Sample: The study sample comprised a series of search terms focusing on the concept of "e-health." Search results then became the basis for statistical analysis.

Study design: Information retrieval study.

Methods: A series of search terms with the common concept of e-health was developed prior to or evolved during the study. National Library of Medicine's PubMed was the database where the terms were tested. The search results from each set were then judged for relevancy. Precision of each set was calculated. Overlap of the concept among sets was also examined.

Results: A total of fifty-six search terms were tested. They either included a space or did not include a space between the beginning word and another word. Sixteen search strategies started with cyber; five with digital; twelve with dot; thirteen with "e" such as ehealth, e health, e-health, and others. Five search strategies started with electronic or Internet respectively. The grand total of hits in all sets was 66,343; the average hits per set ranged from 12 (for cyber terms) to 3,627.6 (for e terms). Relevancy and precision will be examined, but an initial perusal suggests that cyber and hyphenated had high precision. Overlapping was observed among sets and will be studied further.

Discussion/Conclusion: Consumers, health care providers, or researchers may be interested in retrieving information on health care related with Internet. However, this experiment on search strategy in PubMed showed that to e or not to e health could become a rather complicated endeavor. Users may face difficulty in coming up with more relevant results. It seems that strategies start with cyber and other hyphenated strategies yield better search results than those started with digital, dot, electronic, or Internet.

## Access to the fringe: evolving concepts in complementary and alternative medicine

**Catherine Arnott Smith,** predoctoral research fellow, Center for Biomedical Informatics, University of Pittsburgh, Pittsburgh, PA

Purpose: To determine the persistence of concept expression and representation in complementary and alternative medical topics in the National Library of Medicine's bibliographic products, from *Index Medicus* to MEDLINE.

Methodology: Citation analysis. Subject headings in the alternative medicine tree of MeSH (E02.040) were traced backward from 2000 MeSH through the 1879 *Index Medicus.* Four terms of interest—"acupuncture," "Chinese medicine," "therapeutic cults," and "quackery"—were analyzed in detail to obtain information about frequency, trends, and concurrence of these terms, as well as variant strings connoting the concept over time.

Results: Chinese traditional medical practices have been awarded specific subject headings since 1879 (acupuncture and moxibustion, highly correlated at Spearman's r = 0.96), while Chinese traditional medicine itself has been in MeSH virtually every year since 1904. Therapeutic "fads" and "cults" are relatively strongly correlated with "quackery" (Spearman's r = 0.80) but have warranted subject headings only since 1920.

Discussion/Conclusion: Examination of historical evolution of medical concepts provides one way to understand the place of these concepts in a labeled world. Trends in naming of alternative medical practices over time will be discussed, as will the phenomena of practices that wax and wane in the "alternative" tree.

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CONTRIBUTED PAPER/INVITED SPEAKER SESSIONS

### Gene Therapy: We're Only at the Beginning

### Cancer Librarians, Consumer and Patient Health Information, Medical Society Libraries, Hospital Libraries and Pharmacy and Drug Information Sections, and Molecular Biology and Genomics SIG
SUNDAY, MAY 27, 2001, 4: 00 P.M.–5: 30 P.M.

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## Recombinant adeno-associated virus (rAAV) gene therapy for cystic fibrosis (CF) and alpha 1-antitrypsin (AAT) deficiency

**Terence R. Flotte, M.D.,** professor, Pediatrics and Molecular Genetics and Microbiology, College of Medicine; director, Genetics Institute; and director, Powell Gene Therapy Center; University of Florida–Gainesville

Recombinant adeno-associated Virus (rAAV) vectors have theoretical advantages as vehicles for human gene therapy, because they are based on a virus that is nonpathogenic and has a natural mechanism for long-term persistence in human cells. The ability to manipulate genes also has the potential to be a powerful research tool in animal models of human diseases. Our laboratory has developed rAAV vectors for the two common single gene disorders that affect the lung, cystic fibrosis (CF) and alpha 1-antitrypsin (AAT) deficiency. In addition, we have developed vectors for expression of the important anti-inflammatory cytokine, interleukin-10 (IL10), which could be therapeutically useful in inflammatory diseases like CF, type I diabetes mellitus, or inflammatory bowel disease. Preparations of rAAV-CFTR, rAAV-AAT, and rAAV-IL10 have been extensively characterized in cell culture systems, animal models, and early phase I trials in CF patients. Studies with rAAV-CFTR and rAAV-IL10 in CF bronchial cells have been used to examine the functional consequences of CFTR and IL10 expression. These studies have demonstrated that therapeutic levels of AAT can be achieved in mice by delivery to muscle, liver or lung. Interestingly, studies of both rAAV-CFTR in monkeys and rAAV-AAT in mice indicate that the vector DNA persist in long strings or concatemers that are episomal (i.e., physically separate from the host cell chromosome, in contrast with the naturally occurring form of the virus) and that host cell factors play a role in this process. This could allow for the DNA to persist without incurring the potential risk of disrupting host cell genes. Phase I trial results in CF patients are also encouraging in that DNA transfer and expression have been observed in the sinuses and the lung without vector-related toxicity. A phase II aerosol trial of rAAV-CFTR is planned in CF patients, as is a phase I trial of rAAV-AAT in AAT-deficient patients.

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## Cancer gene therapy 2001: hype or hope?

**Lung-Ji Chang, Ph.D.,** associate professor, Department of Molecular Genetics and Microbiology, Powell Gene Therapy Center, University of Florida–Gainesville

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## Fighting fate: resources for genetic medicine

**Jennifer A. Lyon,** coordinator, Research Informatics Consult Service, Eskind Biomedical Library, Vanderbilt University Medical Center, Nashville, TN

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### Cross-Cultural Encounters of the Third Kind

### Consumer and Patient Health Information and Public Services Sections
SUNDAY, MAY 27, 2001, 4: 00 P.M.–5: 30 P.M.

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## Culturally competent health care: implications of diversity for health sciences librarians

**Robert C. Like, M.D.,** associate professor and director, Center for Health, Families, and Cultural Diversity, Department of Family Medicine, Robert Wood Johnson Medical School, University of Medicine and Dentistry of New Jersey–New Brunswick

## Hispanic health informatics: cross-cultural encounters of an outreach kind

**Gerald J. Perry, AHIP,** head, Information Services, Arizona Health Sciences Library, University of Arizona–Tucson; **Marlo Maldonado Young,** associate fellow, National Library of Medicine, Bethesda, MD; **Mary L. Riordan, AHIP,** associate librarian, Information Services; and **Hannah M. Fisher, AHIP,** associate librarian, Information Services; Arizona Health Sciences Library, University of Arizona–Tucson

Purpose: This presentation will provide an overview of Hispanic/Latino health issues, highlight key informatics resources, and describe three initiatives as models of collaboration for extending and enhancing access to ethnic-specific informational resources and services.

Setting/Participants/Resources: In the United States, there continue to be disparities in the burden of illness and death experienced by racial and ethnic minorities, including Hispanics/Latinos, when compared to the population as a whole. Anticipated demographic changes, in particular an increase in the numbers of Hispanics/Latinos making that group the largest minority by the year 2010, will magnify the importance of addressing these disparities. Eliminating them will require proactive efforts at preventing disease, promoting health and delivering culturally competent clinical care. Effective health information services pertaining to Hispanics/Latinos can serve an integral role in improving the quality of research, clinical care, and prevention services regarding this distinct and diverse population.

Brief Description: At the Arizona Health Sciences Library, University of Arizona, three ongoing initiatives are underway to deliver Hispanic health informatics services. For health practitioners on both sides of the United States-Mexico border, the library sponsors a bilingual Website providing access to Spanish language interfaces for PubMed and Pan-American Health Organization databases, along with document delivery services. The library provides support to scholarship through an active partnership with the University of Arizona's College of Medicine's Hispanic Center of Excellence (*HCOE). Center support includes the ongoing evaluation of the library's Hispanic health information resources, development of a Website providing access to research, clinical information tools and patient education materials, and partnership in informatics training. To support Hispanic/Latino consumers, the library markets its bilingual electronic and print consumer health resources through a Spanish language brochure developed in collaboration with the University of Arizona teaching hospital's Patient and Family Education Council (PFEC).

Results/Outcomes/Evaluations: The bilingual Website initiative is undergoing evaluation by stakeholders utilizing a research based online query form. Support for the *HCOE is ongoing, featuring the placement of a librarian on the center's steering team. Outreach to Hispanic/Latino patients is being measured jointly by the library and PFEC.

## Designing a curriculum on Internet health resources for deaf high school students

**Amy L. Gregg,** reference librarian; **Barbara A. Epstein, AHIP,** associate director; **Charles B. Wessel,** coordinator, Affiliated Hospital Services; **Jody A. Wozar,** reference librarian; Health Sciences Library System, University of Pittsburgh, Pittsburgh, PA; and **Linda Burik,** director, Learning Center, Learning Center, Western Pennsylvania School for the Deaf–Pittsburgh

Purpose: This paper examines the integration of instruction about quality health resources on the Internet into the health curriculum of a specialized high school for deaf and hearing-impaired students.

Setting/Participants/Resources: The Health Sciences Library System (HSLS) at the University of Pittsburgh has formed a partnership with the Western Pennsylvania School for the Deaf (WPSD).

Brief Description: This project was partially funded through a subcontract with the National Library of Medicine. As one component of its Health Information for the Public project, HSLS formed a partnership with the WPSD. This partnership allows for a librarian to provide instruction to health education and learning center teachers, and students at WPSD about health resources on the Internet. This paper describes the planning process, curriculum development, and challenges encountered. Challenges include: English as a second language, the need for a sign language interpreter, student reading ability at a third to fourth grade level, and the need for appropriate visual presentations to accompany the audio counterpart.

Results/Outcome: The partnership formed between HSLS and WPSD improves deaf high school students' ability to locate quality health information found on the Internet.

Evaluation Method: A pre-class survey and course evaluation were used to determine the impact of the instruction.

## Core Competencies for Librarians in Informatics-Intensive Environments

### Medical Informatics, Public Health/Health Administration, Leadership and Management, and Medical Library Education Sections
Sunday, May 27, 2001, 4: 00 p.m.–5: 30 p.m.

## The Pittsburgh experience: an exploration in educating medical librarians for informatics careers

**Catherine Arnott Smith,** reference librarian, Center for Biomedical Informatics; and **Ellen Detlefsen, D.L.S.,** associate professor, School of Information Sciences, Department of Library Science; University of Pittsburgh, Pittsburgh, PA

Purpose: This paper will report on key content issues encountered during the education and training of medical librarians in medical informatics in an academic program.

Setting/Participants/Resources: The Center for Biomedical Informatics at the University of Pittsburgh is an NLM-funded interdisciplinary training program in medical informatics, open to clinicians, computer scientists, information scientists, and other professionals, including librarians. Since the mid-1990s, medical librarians have been formally admitted to the training program and to its individual courses along a continuum of participation, ranging from journal clubs, classes, and symposium attendance, through post-master's research fellowships, to doctoral-level study and postdoctoral training.

Brief Description: This paper examines questions related to the identification of core competencies needed for successful completion of academic work in medical informatics. Topics addressed include the necessary subject prerequisites and the adequacy of traditional library school curricula in preparation for informatics work.

## Discovering information vectors for public health: new roles for information professionals

**Jocelyn A. Rankin, Ph.D., AHIP,** chief, Centers for Disease Control and Prevention Information Center, Atlanta, GA; and **P. Zoë Stavri, Ph.D.,** adjunct assistant professor, Medical Informatics, Oregon Health Sciences University, Sonoita, AZ

## So, what have you been up to? Evaluating employee performance on teams

**Suzanne F. Grefsheim, M.Ed.,** director; **Thomasin R. Adams-Webber,** information services librarian; **Brigit S. Sullivan,** information services librarian; and **Patrick Hanrahan,** team leader; NIH Library, National Institutes of Health, Bethesda, MD

Purpose: This paper will report on efforts to develop a method of evaluating employee performance on teams outside the employee's primary work area.

Setting/Participants/Resources: The National Institutes of Health (NIH) Library supports the information needs of basic and clinical researchers at the NIH. Although organized into traditional sections, much of the new or emerging work of the library is accomplished in cross-sectional or project teams. In this environment, supervisors have little direct knowledge of a significant portion of an employee's performance, yet are still expected to conduct performance reviews. To address this situation, a self-directed project team, the Team Evaluation Team (TET), was formed to identify, test, and recommend an evaluation method that will meet the needs of employees and their direct supervisors for constructive feedback on team performance. The TET includes librarians and technicians from all sections in the library.

Brief Description: The TET began in 1999 by reviewing the literature on team evaluation. They developed a survey based on the key findings and used it to obtain input from staff and leadership about what each considers most important to evaluate. From this they designed a prototype for capturing feedback from team members about individual employee performance on a team. Prior to mid-year reviews in 2000, the TET pilot tested the instrument with one short-term project team and a standing cross-sectional team. The evaluation tool prototype has two components: an employee self-evaluation and a section for comments or feedback from fellow team members.

Results/Outcome: In addition to modifying and retesting the team evaluation instrument for full implementation in the 2001 performance year, all library staff received training in giving and receiving feedback to prepare them for this new evaluation method.

Evaluation Method: Staff and supervisor feedback will continue to be sought throughout the implementation phase and each year thereafter to identify ways to improve the instrument.

## Decision analysis: its importance for librarians in an informatics environment

**Kristine M. Alpi, AHIP,** information services librarian, Samuel J. Wood Library, Weill Cornell Medical College of Cornell University, New York

Decisions are made everyday without much thought to the process, but decision making is an important skill that needs to be developed in order to perform successfully in an informatics-intensive environment. Decision analysis (also known as decision science or decision support) is a multidisciplinary field that combines computer science, cognitive science, and specific-subject disciplines. Decision support systems are computer applications designed to simplify access to data needed to make decisions. Why learn decision analysis techniques? Health sciences librarianship is moving toward an evidence-based approach. Focusing on quality evidence without improving decision-making skills does not fulfill the potential of evidence-based practice. In addition, teaching the clinical decision-making process is a component of medical education. There are roles for librarians in design, evaluation, and application of decision support systems, including the impact of practitioner and patient use. Designing and implementing knowledgebases and other systems provides challenges in computing infrastructure, data collection, and organizational issues. Problem Knowledge Couplers are just one example of a clinical decision support software tool that involved librarians in collaborative development. Decision-making skills are often learned experientially, but skill in decision analysis can be developed through professional reading, formal classes in person or via distance learning, or experimentation with decision support systems. Many academic health sciences centers offer courses in decision analysis, and librarians should take advantage of these opportunities. A class in decision analysis at the author's institution provided an opportunity to explore how clinicians learn decision making and to understand how that knowledge might be applied in practice. What level of decision analysis expertise should librarians seek? The goal could be to become comfortable enough to apply or teach decision analysis techniques or to play a role in developing decision support systems. By expanding decision analysis skills through professional development, librarians will be able to achieve their goals more effectively. Taking a formal class in decision analysis proved to be an effective method of improving decision-making skills.

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### Using the Web and Other Technologies to Enhance Reference Services

### Public Services, Medical Informatics, and Federal Libraries Sections
Sunday, May 27, 2001, 4: 00 p.m.–5: 30 p.m.

## PDAs: potential applications in academic health sciences libraries

**Gail Persily,** assistant director, Informatics Education; **Peggy Tahir,** information services librarian; **Clair Kuykendall,** education coordinator, Clinical Programs; and **Keir Reavie,** education coordinator, Nursing and Behavioral Sceinces; Library and Center for Knowledge Management, University of California–San Francisco

Purpose: This paper will explore potential library applications for personal digital assistants (PDAs). Suggestions for initiating PDA services in your library will be included.

Setting/Participants/Resources: The University of California San Francisco is a large, academic health sciences campus serving students, faculty, researchers, and clinicians in a number of disciplines. The library has a tradition of leveraging new technologies to improve services and support changes in academic and clinical environments.

Brief Description: Given the increased use of PDAs by students and faculty to handle their clinical schedules and coursework, libraries have the opportunity to collaborate in the development of applications that use this technology. An interdisciplinary team of library professionals from information technology (IT), education services, reference, and instructional technology was created to identify potential uses for PDAs. Focus group sessions with students, faculty, clinicians, and researchers will be held to determine current uses of PDAs and investigate interest in further applications. Potential applications identified to date include: downloading search results to PDAs for review at a future, convenient time; submitting interlibrary loan requests via the PDA; purchasing licenses for PDA-compatible versions of reference texts; installing synching cradles at public workstations; and deploying wireless technology for use with PDAs. Planning and implementing PDA-based library services requires close collaboration with user groups and creative input from staff across departments.

Results/Outcome: Key services that can be readily implemented will be identified, such as installation of cradles. Planning and development of other services—requiring collaboration with IT, database providers, and vendors—will also be discussed.

Evaluation Method: Focus groups and surveys will be used to determine initial user needs. User feedback on pilot projects and prototypes will be evaluated through various mechanisms. Input will also be solicited from library staff regarding support and service issues. The technical and financial feasibility of applications will need to be evaluated at early and later phases of the process.

## eReference: growing pains of a growing service

**Roumiana Katzarkov,** health sciences librarian, and Stephen L. Clancy, AHIP, health sciences librarian, Science Library, University of California–Irvine

Purpose: The paper will discuss the evolution of the electronic reference service at the University of California-Irvine (UCI) libraries and the testing and implementing of the Cisco Systems WebLine collaboration software as part of the Metropolitan Cooperative Library System (MCLS) project for purposes of providing real-time reference services over the Internet.

Setting/Participants/Resources: The UCI libraries, a large academic library system, consist of the Science Library, Main Library, and Medical Center Library located approximately sixteen miles from the main campus. For the last few years, the librarians have been investigating innovative approaches for providing electronic reference service. A project started by the MCLS presented the opportunity to test and evaluate a real-time interactive product that has been successfully used in commercial settings.

Brief Description: For number of years, the UCI libraries have had a successful email reference service named "Ask-a-Librarian." Despite the fact that questions got answered in twenty-four hours, the service failed to meet the users' expectations of immediate response. Desiring a method of real-time service that could more fully address users needs and expectations, a group of librarians agreed to participate in an evaluation and test of the WebLine software. This product supports both interactive chat and sharing of Web browser screens that allow librarians to guide and instruct users in online systems and databases available through the UCI libraries Web pages. This way the guidance is provided through the entire reference process including database searching and displaying full-text online resources.

Results/Outcomes: Provision of remote real-time reference has some distinct differences from both in-person and email-based services. Interaction between librarian and user via the chat function can be protracted causing frustration at both ends. Though the ability to share Web pages is exciting, the WebLine software often encounters difficulties when attempting to interface with complex and non-standardized Web pages. The product was demonstrated at the UCI TECHNO EXPO and was very well received.

Evaluation Method: Transaction logs of each online session allow the evaluation of user satisfaction as well as the effectiveness of librarian/user interactions. It is also planned to solicit user comments via questionnaires and in-person interviews.

## Collaborative Digital Reference Service (CDRS)

**Linda White,** digital library specialist, Digital Library Learning Center, Library of Congress, Washington, DC

INVITED SPEAKER SESSIONS

### An Information Oddity: The Quest for Reliable Resources and Tested Terminology in Alternative and Complementary Therapies

**Chiropractic Libraries, Hospital Libraries, Consumer and Patient Health Information Sections and Mental Health and Complementary Medicine SIGs**
Sunday, May 27, 2001, 4: 00 p.m.–5: 30 p.m.

## Humpty Dumpty and the language of alternative medicine: some implications for information professionals

**David J. Owen, Ph.D.,** education coordinator, Basic Sciences, Library, University of California–San Francisco

## Transition from print to Web: creating and publishing a consortial chiropractic index

**Pam Bjork, AHIP,** director, Learning Resources, Western States Chiropractic College, Portland, OR

Information specialists working outside the mainstream of traditional medical care have a special need for cooperation. They must struggle independently to create the necessary indexes, lists of subject terms, cataloging and classification schemes, and appropriate bibliographies that

are taken for granted by those who work in allopathic institutions. In 1976, a group of chiropractic college librarians formed the Chiropractic Library Consortium and worked together to build a controlled vocabulary, patterned after MeSH, called CHIROSH. Chiropractic journals were then indexed, edited, and published by the members in 1980 as the *Index to Chiropractic Literature.* Over the years the index evolved to a DOS and then a Windows format and has recently moved onto the Web, providing the chiropractic community, health professionals, and the general public access to this literature.

## Why is complementary and alternative medicine an information oddity and where are the reliable resources?

**Charles B. Wessel,** coordinator, Affiliated Hospital Service, Health Sciences Library System, University of Pittsburgh, Pittsburgh, PA

## Collections and Technical Services Special Topics Roundtable

### Collection Development and Technical Services Sections
SUNDAY, MAY 27, 2001, 4: 00 P.M.–5: 30 P.M.

## NLM's uncoupled subject headings: should medical libraries follow suit?

**Evelyn S. Bain,** head, Cataloging Unit 1, National Library of Medicine, Bethesda, MD

## If books are down: what is the impact on processes and staffing?

**Deborah A. L. Silverman,** assistant director, Resource Management, Health Sciences Library System, University of Pittsburgh, Pittsburgh, PA

## Keeping up with aggregators changing content: now you see it, now you don't

**Judith C. Wilkerson,** head, Serials Services, Bird Health Sciences Library, University of Oklahoma–Oklahoma City

## The ILS, the resource page, the vendor platform: will the real catalog please stand up?

**Craig S. Elam, AHIP,** associate director, Technical Services, Lewis Health Science Library, University of North Texas Health Science Center–Fort Worth

## Multiple entries for multiple versions: philosophical and practical implications

**Catherine Currier,** account services manager, EBSCO Information Services, Cary, IL

## DVD "Bookbag of the Future": Implications for Libraries

### Dental Section
SUNDAY, MAY 27, 2001, 4: 00 P.M.–5: 30 P.M.

## E-curriculum and health education: learning for the future

**Van B. Afes, AHIP,** director, Dental Library, Waldmann Dental Library, New York University–New York

The New York University College of Dentistry (NYUCD) is one of four dental schools participating in the Vital Source Technologies' VitalBook®. This product allows each dental school to place its entire curriculum of textbooks, manuals, lectures, and slides on a DVD, replacing printed sources. NYUCD chose to enter into this project for a number of reasons. First, NYUCD is very interested in fostering computer-assisted education. The VitalBook® is seen as a way of helping to achieve this goal. Students will be required to buy and use a laptop computer and the DVD. With this requirement, they will be introduced to cross-disciplinary searching of information. Second, the college sees this as a way to provide a new pathway for faculty to create products that can be maintained and upgraded without the traditional print mediated format. The major publishing houses in dentistry are behind this project and see it as an opportunity to continue to offer high-quality dental information in an environment where traditional print production is shrinking. New editions of the selected books will be added to regular upgrades of the VitalBook, as they become available. Third, the college will be free from dealing with copyright issues. NYUCD will own the copyright of the texts and manuals that are chosen to be a part of this project. This will allow faculty to copy and paste materials used in class presentations and create new manuals without the fear of copyright infringement. The effects on the dental library will be substantial, involving a major shift in the way services are provided. The library's initial involvement was to compile the list of texts the faculty wanted to add to the DVD and forward this list to the company. The library is now in charge of the permissions files that contain the copyrighted materials. The library manages the overall project and oversees the faculty's creation of course materials. We are involved in introducing the product to the students, training them in its use, and teaching them more efficient search strategies. A new orientation course, thirty hours in duration, will be offered in the fall of 2001. This course, the "Application of Technology in Health and Health Practice," will be taught by the director of dental informatics and the director of the dental library and will ensure that students become skilled managers of information access and evaluation in a dental setting. The library is instrumental in working with Vital Sources to create links to MEDLINE and other databases so that students can extend their search for materials beyond the DVD format. Some traditional library functions may become less important, such as the students' dependence on reserve materials. The library will continue to maintain, at least initially, a print reserve collection in order to provide access to information. Overall the library sees the VitalBook as an opportunity for greater involvement with the curriculum through teaching and in-house publishing. In the new era of competency-based dental education, the library sees this product as a way to be better positioned for more direct involvement with the creation and implementation of competencies dealing with literature searching and computer-assisted instruction.

## MEO, Streamlining, and You

### Federal Libraries and Hospital Libraries Sections.
Sunday, May 27, 2001, 4: 00 p.m.–5: 30 p.m.

**William Nichols,** medical librarian, Medical Library, 96th Medical Support Squadron, Eglin Air Force Base, FL

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### The 2001 EMBASE Lecture

### Pharmacy and Drug Information Section
Sunday, May 27, 2001, 4: 00 p.m.–5: 30 p.m.

#### Drug information in the Electronic Age

**Paul L. Doering, M.S.,** distinguished service professor, Department of Pharmacy Practice, College of Pharmacy, and co-director, Drug Information and Pharmacy Resource Center, University of Florida–Gainesville

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### The Research Process: The Beginning or How to Get Started

### Research Section
Sunday, May 27, 2001, 4: 00 p.m.–5: 30 p.m.

#### Research design

**Gary D. Byrd, Ph.D., AHIP,** director, Health Sciences Library, University at Buffalo, NY

#### Introduction to qualitative research

**Cheryl Rae Dee, Ph.D., AHIP,** visiting professor, School of Library and Information Science, University of South Florida–Tampa

#### Statistics simplified

**Leslie M. Behm, AHIP,** health sciences coordinator, Veterinary Medical Center Library, Michigan State University–Lansing

We all use statistics in our daily life without thinking about them. The average temperature for the month, the percentage off an item on sale, kids' test scores, and all kinds of sports information are statistics. Simple descriptive statistics are often all we need in beginning to do basic research. This presentation will demonstrate how to use simple programs such as Excel and Access to compute statistics such as mean, average, standard deviation. It will touch on the higher-powered programs such as SAS and SPSS and what additional computations can be done with them.

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### CONTRIBUTED PAPER SESSIONS

### User-Oriented Collection Management

### Collection Development, Technical Services, Public Services and Consumer and Patient Health Information Sections
Monday, May 28, 2001, 10: 30 a.m.–noon

#### A library by any other name: from virtual to integral

**Terry Henner, head,** Information and Education Services, Savitt Medical Library, University of Nevada School of Medicine–Reno

Purpose: This paper examines the concept of a virtual library program in the context of user expectations and acceptance. It describes the implementation of an array of corollary library services in support of remote users and evaluates the quality and degree of service available to the entire constituency of on-campus and off-campus library users. Programmatic areas for discussion include access to digital journal and book collections, bibliographic instruction, reference services, and document delivery.

Setting/Participants/Resources: The Savitt Medical Library of the University of Nevada School of Medicine supports a medical curriculum that trains students in multiple clinical sites throughout the state. The program is such that a majority of students and faculty are geographically distant from the physical library facilities and staff. Despite the geographic separation, the library remains the primary resource for library services and support.

Brief Description: The virtual library concept has historically been viewed as an appendage that somehow stands apart from the traditional construct of a library program. This paper discusses the synthesis of conventional and electronic implementations of library services into one cohesive undifferentiated union. It presents an evaluation of library services from the perspective of the user and argues that users no longer make a clear distinction between traditional and virtual services.

Results/Outcome: The array of services typically regarded as virtual are, in many cases, viewed by users as interchangeable with or superior to traditional mechanisms of library service. As users increase in sophistication and their technology platform advances, the manner in which library services are delivered, whether within a physical facility, or through a network connection, becomes a matter of user indifference.

Evaluation Method: Input from library users was obtained through surveys, field studies, and focus groups.

## Tracking the user's odyssey: library Website statistics

**Candice M. Benjes,** information specialist; **Janis F. Brown,** associate director, Educational Resources; and **David Morse,** associate director, Collection Development; Norris Medical Library, University of Southern California–Los Angeles

Purpose: This paper will examine the impact of Web usage statistics on a library, its Website, and the resources it licenses.

Setting/Participants/Resources: The library is a medium-sized academic health sciences library in an urban setting.

Brief Description: Like many institutions, our library maintains a Website to provide a variety of information to users. Currently, the library Website has more than one hundred pages including 1,400 electronic journals, books, and selected links to other Websites, as well as general information about the library, its services, and request forms. In the continual struggle to meet users' needs and to spend money wisely on licensing electronic resources, the library relies on use statistics. Since 1995 when the library's Website was first launched, we have collected statistics on which pages were being visited. Since mid-2000, the library also has been able to determine usage of specific e-resources by collecting statistics on the number of times each resource's hyperlink was clicked.

Results/Outcome: The library has used the gathered statistics to renew or cancel online subscriptions, adjust library services to meet online user needs, and redesigned its site to reflect an increasing demand for electronic resources.

Evaluation Method: The university Web server utilizes Analog, a freeware program, to collect statistics. A CGI-script on the Web server collects statistics on individual resources. Cross-verification of statistics between publisher counts and in-house counts is available with some resources.

## Use and impact of online journals

**Sandra L. De Groote,** visiting assistant health science librarian, and **Jo Dorsch, AHIP,** health science librarian, Library of the Health Sciences, University of Illinois-Chicago, Peoria, IL

Purpose: The purpose of this study is to determine users of online journals, patterns emerging among different user groups, impact on in-house journal use, and implications for serials collection development.

Setting/Subjects: The Library of the Health Sciences Peoria is a regional site of the University of Illinois (UIC) Library with a print journal collection of approximately 400 titles. Since 1999, UIC site licenses have given students and faculty affiliated with UIC-Peoria (College of Medicine, College of Nursing) access to more than 3,000 online full-text journal titles through the Internet.

Methodology: Use statistics of the print collection from 1995-1999 were entered into a spreadsheet. Journal titles available only in print were compared with journal titles available online and in print. Print journal usage from 1995-1998 was compared to print journal use in 1999, when online journals were first introduced. In addition, a survey measuring computer literacy, electronic resource awareness, online database use, and journal usage (print/online) was sent to UIC Peoria full-time faculty, medical students, and nursing students.

Results: Use of the print journal collection, including *Abridged Index Medicus titles,* decreased with the introduction of online journals. Characteristics such as computer literacy, regular use of online databases, and electronic resource awareness all influence the use of online journals.

Discussion/Conclusion: Remote access to databases and online journals from the desktop of home and office computers decreases the need to enter the library for literature searches or journal articles. The introduction of online journals has had a negative impact on the use of the in-house print journal collection, regardless of whether the journal is available online or only in print. Users appear to be compromising convenience for quality when selecting journal articles. Shifting patron use patterns impacts collection development, the promotion of full text and print collections, and library instruction.

## Expanding the outer limits: interdisciplinary resources

**Jane Murray,** assistant director, Resources Management; **Beth Jacoby,** head, Collection Development; **Penny Welbourne,** information specialist; and **Ina Alterman,** information specialist; Health Sciences and Human Services Library, University of Maryland–Baltimore

Purpose: This paper will report on efforts to enhance print and electronic resources for a graduate-level social work program and increase the visibility of our electronic resources.

Setting/Participants/Resources: A large academic health sciences library, which is part of a state university system, serving six professional schools on an urban campus that is geographically distant from the other state university libraries, some of which have collections supporting undergraduate work in social work.

Brief Description: The School of Social Work's (SSW's) program is largely interdisciplinary and needs a broad array of materials to support its research. We lack the undergraduate resources that would be available on a main campus or in a library devoted to social work. Resource sharing is a necessity for all disciplines, although the issue of access is highlighted in derivative fields such as social work. In an effort to improve its locally held resources, the library evaluated its collections against peer institutions and against the major social science citation and abstract databases.

Results/Outcome: We engaged in an ongoing dialogue with the SSW and implemented an approval plan for books in social work and related areas. We increased our online and print subscriptions; a recent Web page revision better presents our electronic resources, and their visibility was improved by cataloging some aggregators' individual titles and by purchasing an aggregator package as a gateway for "free with print" online journals. Both the interlibrary loan (ILL) and collection development departments mounted online links on our Web page to facilitate resource sharing and making recommendations for new resources.

Evaluation Method: We will monitor statistics of online and print journal usage and ILL transactions, evaluate the success of the approval plan by monitoring whether the numbers of order requests from SSW faculty decreases, increase our database subscriptions when possible, and encourage SSW faculty and students to continue communicating their needs to the library.

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## Education Outside the Classroom 1: Libraries' Roles in Distance Learning

### Medical Informatics and Educational Media and Technologies Sections
MONDAY, MAY 28, 2001, 10: 30 A.M.–NOON

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### Brave new world: development and delivery of a doctoral survey course in health informatics

**Pascal V. Calarco, AHIP,** advanced technologies librarian, Tompkins-McCaw Library; **Lynne Underwood Turman,** education services librarian, Tompkins-McCaw Library; **Phyllis Self, Ph.D.,** vice provost, Academic Technology; and **John D. Jones, Jr.,** manager, Electronic Resources, Tompkins-McCaw Library; Virginia Commonwealth University–Richmond

Purpose: This paper will present the experience of librarians teaching a distance-education survey course in health informatics at the doctoral level.

Setting/Participants/Resources: The School of Allied Health Professions, Virginia Commonwealth University (VCU), offers degrees at the undergraduate and graduate level in nine disciplinary departments. The school has launched an innovative doctoral program based on Internet instruction and other distance learning technologies. Students take the common core course entitled Health Informatics during their third year of the program.

Brief Description: Each semester in the Ph.D. Program in Health Related Sciences is composed of both on-campus and off-campus components. During the time off-campus, students conduct their studies and interact with instructors primarily via the Web. The creation and management of the Web-based content is supported by Web Course in a Box, a course management software program developed at VCU. The libraries had the opportunity to test several new services for distance learners with the course, including electronic reserves and enhanced document delivery services. The authors describe the unique content and delivery aspects of the program and outline the planning considerations needed to develop the course. They also present lessons learned in distance education from the perspective of both instructor and librarian.

Results/Outcome: The course has been taught for only one semester thus far, but it is expected that it will remain a required course in the curriculum and offered each fall. Recent literature examining online instruction emphasizes the significant amount of time required to develop and deliver distance learning programs and the authors' experience verifies this finding. The librarians' involvement in teaching the course continues to be of strategic importance to the libraries in an effort to more fully integrate library faculty into teaching throughout the university.

Evaluation Method: At the end of the first offering of the course, feedback was sought from the students through an electronic survey instrument. Results of the survey along with the instructors' own assessments are being used to revise course content and assignments for fall 2001.

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### Beyond the academic/hospital culture: connecting affiliate librarians and faculty through videoconferencing

**Janet A. Ohles,** assistant professor and head, Information Services; **Michael Cotter,** instructor and head, Educational Services; New York Medical College, Valhalla, NY; and **Mary Saramak,** librarian, Sound Shore Hospital, New Rochelle, NY

Purpose: This paper reports on the progress, highlights, and pitfalls encountered during a distance-education program that successfully blends the academic and hospital mission while providing instruction to end users. The program utilizes two-way videoconferencing to meet the challenge of delivering distance education to medical students, residents, clinicians, and affiliate librarians. The paper also addresses new roles and areas of responsibility held by the academic library faculty and hospital librarians, such as the development of presentation guidelines for the college community and becoming in-house experts as distance-learning facilitators.

Setting/Participants/Resources: The Medical Sciences Library uses a state-of-the-art Center for Interactive Learning to connect with our numerous affiliates in an eleven-county area. To date, participants have included medical students, residents, clinicians, and affiliate librarians.

Brief Description: The college has a formal commitment to distance-learning technologies. The Medical Sciences Library (MSL) has responsibility for ensuring that training is provided to all end users, including those at affiliated hospitals. This paper will report on the various segments of the program, such as a faculty development session on distance education, bibliographic instruction via two-way videoconferencing between the academic campus and an affiliate hospital, and a demonstration of new Web resources by the academic librarians for hospital librarians. Additionally, the paper will describe the Educational Media Services Unit classes on effective presentations and facilitation skills.

Results/Outcome: The program offers an efficient means to reach end users in many locations at one time and provides affiliate librarians with an efficient means to learn new Web-based resources. New roles include the hospital librarian becoming the in-house expert for facilitating distance education. Additionally, the library has the formal role and responsibility to create and deliver distance-education programs to end users, including medical students, residents, clinicians, and affiliate librarians.

Evaluation Method: Evaluations of classes are done using a Likert scale. The program is also evaluated through conducting a follow-up email one and two months post-class to evaluate whether and how resources are being used.

## From here to Timbuktu: transformation of distance learning classes

**Fran E. Kovach, AHIP,** reference and education librarian; **Rhona S. Kelley, AHIP,** head, Reference and Education Division; and **Carol Thornton,** reference and education librarian; School of Medicine Library, Southern Illinois University–Springfield

Purpose: The paper describes the delivery of computer classes through distance learning to medical students, faculty, and staff on a split campus.

Settings/Subjects: Southern Illinois University School of Medicine Library is split between two campuses within a distance of 174.4 miles. Bringing computer classes to both campuses simultaneously presents a challenge to the librarians teaching the classes and the information technology staff. Librarians using a software program, Timbuktu, along with speaker telephones, camcorders, TV monitors, LCD projectors, and laptop and desktop computers provide class instruction to students, faculty and staff on both campuses about productivity software, email, calendaring, the Web, and Web page development

Brief Description: Classrooms for teaching computer classes remotely are set up in the microcomputer laboratory in Springfield, where the instructor teaches both students in Springfield and in Carbondale. The Springfield distance-learning classroom consists of six laptop computers with Aironet wireless network cards. Timbuktu Pro is the key server software allowing students in Carbondale to view action on the instructor's computer remotely. The computers have Microsoft Office and Netscape Communicator programs. The instructor's laptop connects to an LCD Projector. A camcorder videotapes the librarian teaching the classes. Videophones, telephones, and televisions enable the audio and video portion of the presentations. Both campuses use similar equipment for distance learning.

Results/Outcome: Evaluation and improvements of distance learning is under constant review. Construction of a new distance-learning laboratory is currently underway in the medical library in Springfield. Additional equipment, such as replacement laptops, and experimentation with new technological resources, including NetMeeting and whiteboards, are in process on both campuses.

Evaluation Methods: Instant feedback is provided during the training sessions through oral communication, and email with the attendees after the sessions is used for continued instruction and evaluation. Electronic questionnaires are in development to retrieve additional information for enhancements to the classes.

## Distance collaboration of two schools of library and information science in developing a digital library

**Ana D. Cleveland, Ph.D., AHIP,** professor and director, Medical Informatics Program; **Stacia Gibson,** research assistant, Medical Informatics Program; School of Library and Information Science, University of North Texas–Denton; and **Steven L. MacCall, Ph.D.,** assistant professor, School of Library and Information Studies, The University of Alabama–Tuscaloosa

Purpose: (1) To use distance collaboration to develop a collection of digital resources on preventive medicine; (2) to investigate the technical and human aspects of computer supported distance collaboration; and (3) to engage students in investigating processes for developing a distance collaboration project.

Participants/Setting: Students, professors, and subject specialists at the University of North Texas and The University of Alabama.

Brief Description: The University of North Texas and The University of Alabama have collaborated since 1997 to develop the Clinical Digital Libraries Project (CDLP). The medical informatics classes from the schools of library and information sciences at both universities worked in an innovative partnership to develop the Preventive Medicine section of the CDLP. The two classes met via videoconference four times throughout the semester. Student groups were formed consisting of members from both schools. The professors lectured on the structure of clinical digital libraries and gave guidelines on how to evaluate networked information resources. The students exchanged emails to complete their objectives. In the final meeting, the student groups presented the ontology of their subtopic and demonstrated selected Web-based resources to their professors, classmates, and subject specialists. Finally, data on the project was collected and analyzed.

Results/Outcome: Effective distance collaboration between two academic institutions in developing a digital library can be accomplished. Students successfully worked together and learned that: (1) distance collaboration requires regular interaction, (2) such collaboration enhances their ability to effectively select and evaluate Web-based resources, and (3) developing a subtopic ontology for a medical digital library is a more difficult process than selecting Web-based resources and requires continuous interactive discussion. The project successfully expanded the Preventive Medicine section of the CDLP, according to the subsequent evaluation of the subject specialists involved. In general, distance collaboration is an innovative and viable avenue for enhancing health sciences programs in schools of library and information sciences.

Evaluation Method: Subject specialists evaluated the ontology for potential applicability to a clinical professional's thought processes. Additionally the subject specialists evaluated the presented Web-based resources for authority, scope, treatment, arrangement, format, and special features.

## Librarian roles and reversals: outside-in distance learning

**Elizabeth R. Warner, AHIP,** education services librarian, Scott Memorial Library; and **Anthony J. Frisby, Ph.D.,** director, Education Services; Thomas Jefferson University, Philadelphia, PA

Purpose: This paper will report on five years of librarian experiences in developing and supporting distance-learning offerings in the health sciences. Perceptions and evaluations will include commentary from non-librarian colleagues, faculty, and students.

Setting/Participants/Resources: Academic Information Services and Research, Scott Memorial Library, provides knowledge resources for Thomas Jefferson University, a large, academic health sciences center in an urban setting. The Education Services Division has included librarian team members since its inception.

Brief Description: The role of librarians in the development of for-credit distance learning offerings and other asynchronous learning projects will be outlined. Commentary and evaluation will be summarized and quoted.

Results/Outcome: The ongoing assessment of librarians' actual and perceived duties, roles, and accomplishments regarding the distance-learning offerings provides background for career development, as well as a forum for highlighting the important functions of librarians in the curriculum development, course delivery, and learning support.

Evaluation Method: Written questionnaires and telephone or face-to-face interviews serve to compose the information for this presentation.

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## Providing Reference Services Differently

### Public Services Section
MONDAY, MAY 28, 2001, 10: 30 A.M.–NOON

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### Work/life models and the twenty-first century reference librarian

**Elisa Cortez,** reference librarian, and **Carlene Bogle, chair,** Public Services; Del E. Webb Library, Loma Linda University, Loma Linda, CA

Purpose: This paper examines work/life issues and describes the process involved in creating a work/life friendly structure developed to meet the changing needs of an academic health sciences library's reference department.

Setting/Participants/Resources: Faced with upcoming retirements, parental leaves, and burnout, the librarians and the entire reference department found both challenges and opportunities. With a staff of five full-time reference librarians and five librarians from other library departments, the reference desk was typically staffed fifty-five hours per week.

Brief Description: The authors describe the structure that evolved throughout the academic year to include work/life friendly elements while continuing to provide seamless reference service. Benefits of work/life friendly models are discussed, along with phased retirement, flex-time, flex-year, and key elements of success.

Results/Outcome: Integrating work/life friendly elements into the established reference department structure has been an ongoing process, modified and updated as needed. As a result, reference's essential services were redefined and reference librarians have been able to explore new avenues of personal and professional fulfillment.

Evaluation Method: Anecdotal evaluation derived from ongoing dialogue among the reference librarians and scheduled weekly and quarterly reference meetings.

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### Librarian-initiated contact: have you "licked" your clientele today?

**Caryn L. Scoville,** information services librarian; **Rebecca S. Graves,** educational services librarian; and **E. Diane Johnson, AHIP,** head, Information Services; J. Otto Lottes Health Sciences Library, University of Missouri–Columbia

Purpose: Due to the fact that clientele are not coming to the reference desk to ask for help in the era of end-user searching and distance-education, we felt it was imperative to develop a new way of keeping in touch with our clientele. Instead of waiting for the mountain to come to us, we are choosing to go to the mountain and meet patrons at their doorstep and desktop. The spirit of librarian-initiated contact is essentially to reach out to patrons when and where they are trying to access information, educate them about new resources, and anticipate user needs.

Description: Specific instances of librarian-initiated contact include marketing and advertising strategies such as exhibiting library resources at university-sponsored conferences and programs, demonstrating resources for faculty and staff before and after major staff meetings, developing and using the results of a user needs survey, cold-calling and cold-emailing faculty, advertising library resources and services by way of posters, email, newsletters, free "expert search" coupons, and faculty and staff office visits to help them set up access and teach them about the use of resources. Another important component of librarian-initiated contact is the maintenance of a database of clientele and their research interests. SDIs and relevant pieces of information can be sent to clientele as an enhanced reference service. Our department has also established a simple real-time chat to help patrons from their remote desktop.

Results/Outcome: Our new approach in meeting our users at their points of need has received an enthusiastic response. Patrons are often surprised about how much they did not know about library resources and services and are happy to learn new searching tips. Patrons also appreciate the personal contact that we provide. One drawback of this approach is that it is labor intensive. A limited number of librarians cannot be personal research assistants to all, therefore it is necessary to prioritize which clientele are "licked" first. We feel that developing strong relationships with clientele is essential as the role of the reference librarian continues to evolve.

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### Digital reference services: current and future directions

**Peggy Tahir,** information services librarian, Library and Center for Knowledge Management, University of California–San Francisco

Purpose: This paper reports on the use of email and Web-based tools as important components of reference services. Planning for real-time Web interaction with patrons will also be highlighted.

Setting/Participants/Resources: The Library and Center for Knowledge Management, University of California–San Francisco, is an academic health sciences library that serves a diverse clientele, many located as far as 200 miles away from the main campus.

Brief Description: It is a challenge to provide reference services on a campus with numerous faculty and personnel located remotely. Using technologies such as email and Web-based digital library collections, we can reach out to our remote users and develop public service models for access to materials, reference, and instruction. To meet the needs of our campus community, the use of technology to enhance reference services has become an integral part of the library's programs. We have been providing email reference services for three years. Our service has a twenty-four-hour turnaround time and uses a triage approach to answering questions. This paper discusses our approach to electronic

reference services, and our experience using Web-based tools to enhance service, including reference Web pages, Web-based pathfinders, links to knowledge resources, and online database guides. Service parameters, environment, primary clientele, and the advantages and challenges of digital reference services will be covered. The paper will highlight implementation, staffing and training, and limitations that require personal consultations or thorough reference interviews. New tools such as Webline and future directions for the library's digital reference services will be discussed.

Results/Outcome: The use of electronic tools to enhance reference services has proved to be a successful way to interact with our clients and forge ongoing relationships with students and faculty. The triage approach has offered high-level paraprofessional staff opportunities for development and increased job satisfaction. There has been a steady increase in the number of digital reference requests since implementation, and we highlight these services in our orientation programs.

Evaluation Method: Analysis of email and Web-based requests over the last three years. Anecdotally, we have received favorable comments on our electronic reference services from users.

## Enhancing reference services through Web design and usability testing

**Heather L. Munger,** assistant librarian, and Pamela A. White, assistant librarian, Health Sciences Library, University at Buffalo, NY

Purpose: This paper describes the process for testing Web usability following the redesign of an academic health sciences library home page.

Setting/Background: The Health Sciences Library, University at Buffalo, is a large, academic health sciences library in an urban setting. Most reference interactions start with the library home page. Believing that an enhanced home page could promote better access to library resources, librarians began to examine the architecture and usability of other academic health sciences libraries' Websites. In addition, librarians conducted a review of the literature to determine the impact of Website usability and current methodology for testing. Building on other testing protocols, librarians developed a tool to test the functionality of the redesigned home page.

Methodology: The librarians conducted an observational study using a paired interview technique.

Data Collection: Participants were library student workers who were familiar with the library but had not been exposed to the new Web design. During a structured interview, they were asked eleven closed questions concerning library resources and services. All questions could be answered using the library's home page. To encourage open communication, librarians stressed the goal was to evaluate the new home page and not the student's ability to answer the questions. Responses were analyzed to identify terminology or links that were unclear or cumbersome.

Results: 76% of the questions were answered correctly immediately. Only 14% of the questions were unanswered after two attempts. Three of the eleven questions accounted for most of the difficulty.

Conclusions: The study verified the design changes had the desired effect: improved usability and more direct access to resources and services. While it is challenging to prove statistical significance with such a small sample, the study does confirm that testing a limited number of participants can identify patterns of Web page usage. Results of the study were used to rectify common problems. Librarians continue to monitor reference transactions that use the new home page to assess its usability as a reference tool.

## Open the Palm-bay door, HAL

**Gary A. Freiburger,** director, and **Nancy Utterback,** deputy director, Kornhauser Health Sciences Library, University of Louisville, Louisville, KY

In the summer of 2000, ten staff members of the Kornhauser Health Sciences Library were given palmtop computers. They were asked to experiment with them, to discover what they could and could not do. The purpose of this pilot project was to determine if these devices could improve personal productivity and, more importantly, if the library could experiment with and eventually implement services for our patrons who are palmtop users. The beginnings of this project go back to 1999 when the sophomore medical school class independently arranged for a group discount to purchase Palm Pilots. Soon students were using palm computers in the library and could be seen across campus beaming information to one another and printing information on our library computers through the infrared ports. It became clear that the students had moved at warp speed past the university in their use of this technology. News items began to appear in the library literature and medical literature about the use of palm computers. It became clear that the library needed to stay ahead of this technological wave or risk being left behind by it. This presentation explains the different types of palm computers available and how the technology is developing. We describe projects that others have reported in the literature or that we have learned about through personal contact. Applications that can be of benefit to students, faculty, and library staff will be explained. The projects, policies, and procedures that have resulted from this experiment will be described.

CONTRIBUTED PAPER/INVITED SPEAKER SESSIONS

**Profiles in Leadership: Time Travel with Some of Our Most Memorable Mentors**

**History of the Health Sciences and Leadership and Management Sections and the Oral History Committee**
Monday, May 28, 2001, 10: 30 a.m.–noon

## Separate paths to greatness

**Lucretia W. McClure, AHIP,** librarian emerita, Edward G. Miner Library, University of Rochester, Rochester, NY

The purpose of this paper is to outline the contributions of two Medical Library Association (MLA) members: Frank Bradway Rogers, M.D., and Estelle Brodman, Ph.D. The method for determining this was a review of the careers and publications of the two individuals with the addition

of personal recollections. Traveling back in time to document the accomplishments and contributions to MLA and the profession of medical librarianship brings to light the way they advanced our work. Frank Bradway Rogers, M.D., was both librarian and physician; Estelle Brodman, Ph.D., was both librarian and historian. Their careers led them down different paths, but both achieved greatness. I was blessed with their friendship and consider both my mentors. I met Brad Rogers on November 22, 1963, the day of President Kennedy's assassination. My class in Denver University Library School was visiting the Denison Memorial Library at the University of Colorado where he was the library director. It was an occasion never to be forgotten. He is recognized for the development of automation at the National Library of Medicine and for his leadership as head of a medical school library. He was also a fine binder and an acknowledged author and historian. I met Estelle Brodman at the Upstate New York and Ontario Chapter of MLA meeting in 1964, when she was MLA president. Her achievements include the standards of scholarship she established as author, historian, and editor of the *Bulletin of the Medical Library Association;* her direction and vision as director of the Library at Washington University; and her contributions as an educator. Both made a difference to our work and our understanding of librarianship and should continue to be acknowledged by the association.

## Faces on a medal: collegiality and friendship in the early MLA

**Stephen Greenberg, Ph.D.,** reference/collection access librarian, History of Medicine Division, National Library of Medicine, Bethesda, MD

In 1976, the Medical Library Association issued a commemorative medal picturing three of its founders: George Gould, William Osler, and Margaret Charlton. Recent research into the history of MLA, especially that by Jennifer Connor, gives new perspectives upon the roles of these founders and others but does not fully explain the complex mentoring relationships among these figures and such other MLA giants as Marcia Noyes, John Ruhräh, and Elizabeth Thies. This paper will attempt to address that gap.

## Back to the future: Buchan's domestic medicine, exercise, and preventive medicine

**Richard H. Nollan, AHIP,** assistant professor and coordinator, Health Sciences Historical Collections, and **Thomas Singarella,** professor and director, Health Sciences Library and Biocommunications Center, University of Tennessee–Memphis

Purpose: We will look at this influential work in the history of medicine in the United States in the context of changes occurring in health care in the last thirty years.

Setting: The University of Tennessee (UT) Health Sciences Library is an academic medical center, which opened its Health Sciences Historical Collections (HSHC) in 1996. A year ago the HSHC published its Web page, which highlights the HSHC's focus on the history of health care, especially in Tennessee and the Mid-South.

Brief Description: This presentation discusses one book that contributed toward the practical evolution of medicine and exercise as regimen, therapy, and prevention.

Discussion/Conclusion: In 1769, William Buchan, a Scottish physician, published what today would be called a comprehensive consumer guide to medicine. The HSHC owns an American printing of the this work and a first edition of the work as edited by Samuel Powel Griffitts in 1795. Buchan's purpose was to make medical knowledge generally available to deter quackery, promote nursing and childcare in the home, and to contribute to a more cooperative relationship between doctor and patient. It contains his advice for avoiding sickness by improving, among other things, hygiene, exercise, good parenting, and breast-feeding. Physicians criticized Dr. Buchan for giving away trade secrets. Nevertheless, his book became a best seller in Britain and was translated into French, Spanish, German, Russian, and others. We live in a new era of medicine, which can be characterized by the increasing importance of preventive forms of health behavior and an increased emphasis on prevention and control. Preventive medicine is the branch of medical science concerned with the prevention of disease and with promotion of physical and mental health. Since the 1960s, there has been considerable interest among many Americans and lifestyle health care: jogging and bicycling, health foods, special diets, sports and exercise, yoga and meditation, health spas, and reformed smoking and drinking habits.

## Opening the Doors to HAL—Programs for Developing the Health Librarian of the Future

### International Cooperation Section
MONDAY, MAY 28, 2001, 10: 30 A.M.–NOON

## Regional library services development in Northern Ontario: from needs assessment to evidence-based practice

**Joanne M. Muellenbach, AHIP,** project planner, Information Services, Northern Academic Health Sciences Network (NAHSN), Sault Ste. Marie, ON, Canada; **Dorothy Fitzgerald, AHIP,** director, Health Sciences Library and Computing Services, McMaster University, Hamilton, ON, Canada; and **Liz Bayley,** head, Systems, and curriculum integration coordinator, Health Sciences, Library, McMaster University, Hamilton, ON, Canada

Purpose: To report on the development, implementation, and evaluation of library and information services for health practitioners in Northern Ontario.

Setting/Participants/Resources: In 1999, the Northern Academic Health Sciences Network (NAHSN) received government funding to develop residency education for medical specialists and to expand programming for other aspiring and practicing health professionals in Northern Ontario. The Consortium of Ontario Academic Health Libraries (COAHL) was contracted by NAHSN to coordinate the information services component of the project and hired the information services project planner in February 2000. This position focuses on conducting needs assessments, implementing services and resources, and evaluating the outcome in Northern Ontario.

Brief Description: One of the primary responsibilities of the project planner is to design, conduct, and evaluate information needs assessments on behalf of NAHSN, initially looking at how Northern Ontario health practitioners access information in support of patient care, education, and research. Baseline data is required about the kind of information needed, the circumstances for seeking information, what would facilitate acquiring the needed information, and the barriers to obtaining the desired resources. Throughout Northern Ontario, health practitioners face information services challenges: unreliable technological infrastructure, limited computer equipment and Internet access, poor Internet

searching skills, lack of a professional health sciences librarian, slow interlibrary loan and document delivery, and the overall sense of isolation experienced by those who live in rural or remote locations worldwide.

Results/Outcome: Beginning in January 2000, the Pilot Implementation Period saw the establishment of state-of-the-art, online library services for practitioners and learners in four pilot learning sites, namely: Hearst, New Liskeard, Sioux Lookout and St. Joseph's Care Group in Thunder Bay. The NAHSN Needs Assessment Survey—Pilot Sites—Summary of Responses will be highlighted.

Evaluation Method: The focus group technique was used to gather input from the Northwestern Ontario Health Libraries Association (NOHLA), which informed the needs assessment instrument design. Orientation visits to the four pilot sites took place from April through July 2000 and needs assessment surveys were distributed prior to Ovid database training. Additional feedback was obtained during informal group discussion, individual conversations or via telephone, fax, and email communication.

## Incorporation of molecular biology subject training into a continuous process of staff development

**Jennifer A. Lyon,** librarian; **Nila Sathe,** assistant director; and **Nunzia Giuse, M.D.,** director; Eskind Biomedical Library, Vanderbilt University Medical Center, Nashville, TN

Purpose: Incorporation of subject knowledge and resource utilization in molecular biology and genetics into a continuous staff training program.

Setting/Participants/Resources: Our large academic health sciences library has supported a comprehensive staff training program since 1995. We consider continuous staff development and skills expansion to be a necessary part of our mission to align ourselves with the goals of the medical center. Our most recent effort is the integration of molecular biology and genetic medicine subject areas into the training program.

Brief Description: DNA and protein sequence data is accumulating at a furious pace and the use of such information is rapidly shifting from isolation on the laboratory bench to general medical practice and public view. The "new genetics" cannot be avoided if librarians are to be contributing partners in both clinical and research processes. To increase librarian competency, we have created an eight-week training module that includes subject knowledge, literature analysis, and database searching in the areas of molecular biology and genetics. This module is the first step in a continuous process of instruction in database searching and critical appraisal of biomedical research literature.

Results/Outcome: Librarians will integrate their learned skills and expanded knowledgebase into diverse activities and services.

Evaluation Method: Clinical librarians will demonstrate their gained knowledge at searching and article filtering conferences. Each librarian will also develop expert knowledge in the use of one molecular biology database and use that knowledge to train others. Further evidence will be provided by the librarians' proactive behavior in supplying this type of information to clinicians and researchers, resulting in an amplified level of patron trust in the librarian's ability to field genetic medicine-related questions. Final verification will be demonstrated by an increasing number of such requests.

## Moving on together: Web-based knowledge sharing for staff development

**Jane Rowlands,** head, Library Development, The British Medical Association, London

## Application of the virtual environment in medical information services in Estonia

**Keiu Saarniit,** Medical Information Centre of Tartu, University Clinics, Tartu, Estonia

Estonia, one of the three Baltic States, is situated on the coast of the Baltic Sea. The population of Estonia is about 1.5 million and the area is 45,000 square kilometers. The center of Estonian science and medicine is Tartu, which is also the site of the university founded in 1632 by Swedish king Gustaf II Adolf. The Medical Information Centre of Tartu University Clinics was established in 1994 with the aim to improve the provision of medical professionals with specialist information. In Estonia, medical information is handled also at the Estonian Medical Library in Tallinn, at the Information Department of Tartu University Library, and at several small specialist libraries belonging to hospitals. The principal goal of the Medical Information Centre of Tartu University Clinics was to develop the infrastructure for an all-Estonian medical information system. This task was facilitated by a three-year (1998–2000) support program, initiated by the Medical Internet Programme-Open Society Institute of New York, on the application of information technology resources. Tartu University Clinics were appointed the coordinator of the Medical Internet Programme in Estonia. By the present time, the main aim of the centre's activity—provision of up to date information on each doctor's desktop—has been fulfilled. The basic information resources for the Medical Information Centre are OVID products in the network of the Clinics, MicroMedex databases, online access to EBSCO databases and journals, etc. Access to information sources is granted by supplying registered users with a password. Information about the books available at the centre can be obtained from the electronic catalogue. The basic user category is formed of physicians, medical professionals, students, and information specialists from other libraries. Continuing education programs include courses on the application of the Internet in medical profession: how to find medical information online and how to create one's own information resources online. The Medical Information Centre has developed distant learning programs that allow more persons to train in a shorter time. Education courses are given via the Internet. The target participant groups of the courses are physicians, nurses, and teaching staff as well as postgraduate students. The creation of a database of Estonian medical literature, containing publications by Estonian medical researchers, is in progress. The database contains references with abstracts of papers, and searches are performed according to the author's name and institution, title, subject, source, and year of publication. The database is bilingual, in English and in Estonian. Estonian medical researchers publish about 1,000 papers per year, among them about 100 titles published in peer-reviewed journals. Approximately half of publications in foreign journals are completed in collaboration with researchers from other countries. Estonian scientists have worked in close collaboration with Finnish, Swedish, and German colleagues. The key word of the current year in the centre's activity has been electronic library. Acquisition of electronic publications has increased, and a software program is developed for the search system of the electronic library.

## What Is an Information Portal and Why Should I Care?

### Hospital Libraries, Corporate Information Services, Collection Development, and Educational Media and Technologies Sections and Internet SIG

MONDAY, MAY 28, 2001, 10: 30 A.M.–NOON

Speakers: **Susan Quinn,** American College of Physician Executives, Tampa, FL; **Pam White,** consumer health coordinator, NN/LM New England Region, Lyman Maynard Stowe Library, University of Connecticut Health Center–Farmington; and **Jean Demas,** assistant vice president, Information Services, Alliance of American Insurers, Downers Grove, IL

## Making the Magic: Essentials of Leadership

### Leadership and Management and Public Services Sections

MONDAY, MAY 28, 2001, 10: 30 A.M.–NOON

Speaker: **Maureen Sullivan,** adjunct faculty, Office of Leadership and Management Services, Association of Research Libraries, Washington, DC

Panelists: **Rosalind K. Lett, AHIP,** director, Medical Library, Emory Healthcare/Crawford Long Hospital, Atlanta, GA; **Logan Ludwig, Ph.D., AHIP,** associate dean, Medical Library, Stritch School of Medicine, Loyola University Medical Center, Maywood, IL; and **Lois Weinstein, AHIP,** executive director, Medical Library Center of New York–New York

## Bioethics, Genetic Counseling, and Gene Ethics: Issues in Veterinary and Human Medicine

### Veterinary Medical Libraries, Cancer Librarians, and Medical Society Libraries Sections and Molecular Biology and Genomics and African American Medical Librarians Alliance SIGs

MONDAY, MAY 28, 2001, 10: 30 A.M.–NOON

### Bioethics and its application to veterinary medicine

**William T. Watson, DVM,** coordinator, Biomedicine Program, National Center for Bioethics in Research and Health Care, and director, Comparative Medicine Resource Center, College of Veterinary Medicine, Nursing, and Allied Health, Tuskegee University, Tuskegee, AL

Bioethics is a term devised to include a broad spectrum of biological entities under the umbrella of ethical considerations and applications. Traditionally, "ethics" has been discussed in a more narrowed context with applications mainly to humans. When one hears the term "Bioethics," the tendency is to immediately think of issues surrounding human medicine. Rarely does one think of its' application to nonhuman animals. This presentation will outline some the applications of bioethics to animal medicine. Examples such as the rise in popularity of genetically altered and cloned animals has expanded the ethical debate to include not only the impact on humankind, but also the impact upon the animals themselves. A review of some recent articles, workshops, and symposia covering this subject will be presented. The ethical debate over the use of animals in biomedical/behavioral research, cosmetic testing, exhibition, and for food and fur has been ongoing for some time and some examples will be highlighted. The role the National Center for Bioethics in Research and Health Care in addressing issues involving veterinary bioethics will be presented during this presentation. Attendees are expected to leave this session with an enhanced appreciation for the application of bioethics in veterinary medicine and how librarians might prepare for what is expected to be more publications and an increase in requests for literature citations in this area.

### Genetics in the community of color

**Tené N. Hamilton,** genetic counselor, National Center for Bioethics in Research and Health Care, Tuskegee University, Tuskegee, AL

### Bioethics, genetic counseling, and gene ethics: issues in veterinary and human medicine

**William L. Allen, J.D.,** director and associate professor, Program in Medical Bioethics, Law and Medical Professionalism, College of Medicine, University of Florida–Gainesville

The growing stream of personal probabilistic risk information from the molecular genetic analysis made possible by the results of the Human Genome Project presents a problem for patients, health providers, and families. Although such information may be beneficial for health care decisions by physicians and their patients, such information will also be useful to insurers, employers, and other third parties who may use it in ways not regarded to be in the patients' interests. Some progress has been made in providing policies to prevent such problems, but they do not yet constitute comprehensive or adequate protection for personal privacy or protection against genetic discrimination. The problems growing out of genetic testing may be magnified when genetic technologies make possible more than risk information, enabling actual interventions at the molecular level to provide prenatal selection of genetic factors determining important characteristics. A greater consensus exists that therapeutic interventions for individuals should be allowed than exists for the pursuit of other types of interventions. Many commentators eschew molecular interventions that would be passed on to future offspring, even if those interventions are limited to therapeutic interventions only and do not include measures intended to enhance human characteristics, such as intelligence. Many also oppose any interventions intended for enhancement, even if such measures are only implemented for individuals in ways that are not passed on to their offspring. These apparent bright lines for distinguishing among the various options for molecular genetic interventions are not adequate for making valid ethical distinctions on which to base public policy. Adequate moral reflection for making such decisions will require more complex and subtle reasoning than merely prohibiting entire categories of interventions. What will be more problematic than prohibiting types of

interventions will be the fairness of access to such interventions to all that desire them. Fair distribution of such opportunities will require equality of access in order to prevent the creation of a biological aristocracy that is incompatible with the democratic socially dynamic society we value.

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## CONTRIBUTED PAPER SESSIONS

## Getting All the Oars in the Water: Collaborative Teams and Strategies for Technology Implementation and Support

### Educational Media and Technologies and Medical Informatics Sections
TUESDAY, MAY 29, 2001, 2: 30 P.M.–4: 00 P.M.

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### Making it up as we go along: collaboration between the library and central university information services to provide information technology (IT) support in an academic medical center

**Jane L. Blumenthal, AHIP,** assistant dean, Knowledge Management, Dahlgren Memorial Library, Georgetown University Medical Center, Washington, DC; and **Ardoth Hassler,** associate vice president, University Information Services, Georgetown University, Washington, DC

Purpose: This paper will report on the collaboration of library and information services staff to deploy a new model of academic computing support in a medical center.

Setting/Participants/Resources: At a research university and academic health sciences center in an urban setting, librarians and technical staff cooperated to provide desktop, server, and academic computing support to researchers, teaching faculty, staff, and students.

Brief Description: Within the past year, ownership of the university hospital was transferred to a not-for-profit corporation and the hospital's information technology (IT) contractor no longer had responsibility for the academic and research missions of the medical center. The medical library and central university information services worked together to facilitate the transition to a new collaborative support structure that worked across organizational and campus lines. This case report will detail the planning and deployment of the new model, discuss problems encountered, and outline factors that contributed to its success.

Results/Outcome: The new support structure is still undergoing refinement, but early feedback is positive. The cooperative efforts to date are the foundation for future cooperation in university-wide faculty development and support efforts using technology.

Evaluation Method: Throughout the year, we will survey both faculty and students to determine their access to technology and satisfaction with IT support. Focus groups as well as online questionnaires will be used to gather data.

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### Improving medical center communication strategies through interdepartmental collaboration

**Annette M. Williams,** coordinator; **Nila Sathe,** assistant director; and **Nunzia Giuse, M.D.,** director; Eskind Biomedical Library, Vanderbilt University Medical Center, Nashville, TN

Purpose: Effective Web content and design is largely produced through collaboration among key stakeholders: the library's Web team, communications/marketing, and medical center departments. We describe a collaboration between the library's Web team and communications to refine our Web presence to reflect enterprise marketing strategies and incorporate knowledge management to advance information sharing and reuse.

Setting/Participants/Resources: We are redesigning our medical center's Web structure to broaden its public relations role, target wider audiences, and expand functionality. Librarians and communications personnel each bring unique resources and skills that, employed in concert, will optimize site presence. Moreover, effective partnering between these groups provides shared standards and vision among medical center departments. In turn, cohesive design facilitates content access for all users.

Brief Description: This emphasis on user-friendly design is further enhanced by the ubiquity and penetration of the Internet, which transforms all staff into knowledge resources. Successful external communication hinges on employees' efficient access to medical center-site content, including publicly accessible and intranet content. An effective intranet acts as a centralized information clearinghouse, thereby reducing redundancy of information-distribution. The librarian and communications teams possess complementary skills to address these content and design issues and assume leadership roles in the continued evolution of the Web presence. Librarians' knowledge management skills will impose logical order on content and promote the reuse of information; their customer service skills and extensive experience with the electronic environment will ensure the content's accessibility. Communications personnel lend marketing skills, demographic awareness, and knowledge of the medical center organization. Additionally, this department has the power to funnel medical center-wide communications to the Web and publicize new Web functionality.

Results/Outcomes: By applying the unique skills inherent in these two departments, we will transform the medical center Web presence into a centralized communication resource that fulfills different functions for different audiences while reducing information redundancy. This project also tests a model for collaboration, which could be scaled up to the entire university's Web presence.

Evaluation Method: We will measure the extent to which the medical center transitions from traditional communication methods to Web communication, gauged through focus groups, surveys, and random inquiries.

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### Open source systems for libraries: a new approach to resource sharing

**Eric H. Schnell,** assistant professor and head, Information Technology, Prior Health Sciences Library, The Ohio State University–Columbus

Libraries have been cooperating to meet common service goals and demands for well over a century through the development of networks

and consortiums. The decision to develop or become involved with a library network is to effect a positive change on a library's ability to plan and budget. Over the years, multisystem library networks have been developed to leverage discounts for printed materials. Libraries have shared their collections through formal and informal document delivery networks. Collection development agreements have been made between neighboring libraries for the purchase of rare books. Public and academic libraries in most states have established resource-sharing networks of some degree. As need for software to support the Internet-based library services increases, so do the costs associated with commercial software solutions. In response, library professionals have begun to create new networks to support library-oriented, "open-source" systems. Open source is a philosophy of computer software development where computer applications are created by a community of programmers and distributed without licensing fees. This open source for libraries approach is different from past efforts to build "home-grown" information systems. Frequently, libraries that attempt to develop their own systems lack all the human elements to create scalable and portable systems. Staffs with programming, testing, evaluation, troubleshooting, and user education skills are needed to create such systems. Together, a group of libraries has a greater chance of assembling a development team with a full complement of these skills. An open-source network also serves as a peer-review system that is often missing from many homegrown development projects. It is also a common experience that when the programmer of a homegrown system leaves employment, the system gradually falls apart and dies. With open-source development, someone in the development community usually takes over the management responsibilities of viable and useful systems and they continue to evolve. This presentation will provide an overview of the open source for libraries strategy, details an open source project, and discusses how establishing open source library networks can affect the library systems paradigm.

## What to do before the Web manager leaves: documentation and planning of Web development projects

**Mitchel L. Walters, AHIP,** manager, Web Services; **Karen Harker,** Web developer; **Judi Hill,** Web editor; and **Brenda Berkins,** Web specialist; Medical Center Library, The University of Texas Southwestern–Dallas

Purpose: As librarians' technical Web skills grow, they are incorporating more local databases, search tools, feedback mechanisms, and interactive forms into our Websites. In our particular case, the realization that the departure of one key technical person could severely cripple our Website sent us searching for the best way to document the custom software that she had helped us to develop. This paper will describe the software development and documentation process that resulted from our search. The process has become a part of all Web development projects in our library.

Setting/Participants/Resources: This large, academic medical center library has a Website receiving approximately two million hits per year. Most of the important functions of the site are generated dynamically using Cold Fusion to serve Access and SQL databases. A library unit of four FTE is responsible for maintenance of the site, but software development is distributed throughout the library by means of cross-functional project teams.

Description: In the course of studying how professional software engineers manage projects and write documentation, we gleaned good ideas from several sources and combined them into a development process that uses careful project planning both to guide the process and to write the software documentation at the same time. We have called this the Process Improvement Initiative (PII). It leads a project team through the steps of defining the modules of their product, fully designing the modules on paper, and then building the modules. The successive levels of ever-more-detailed designs are recorded on templates, which then become the written documentation for the finished product.

Results/Outcome: To date, PII has been successfully implemented in a half-dozen software development projects including a faculty publications database, a Web-based user survey, and a library newsletter that is dynamically generated and archived.

Evaluation Method: PII allows a project team to monitor its progress through well-defined schedules and work plans. It includes frequent self-evaluation exercises by the team and a wrap-up evaluation of PII itself at the end of the project.

## Stanford Mobile Med: is there a geek in the house?

**Todd Grappone** and **Rikke Greenwald,** Lane Medical Library, Stanford University, Stanford, CA

In October 2000, Stanford University's Lane Medical Library distributed 225 Palm Vx Organizers to pre-clinical medical students for integration into the medical school curriculum. This project, in cooperation with various departments in the Stanford University School of Medicine, is the first of its kind to be administered through and funded in its entirety by a medical library. The goal of the Palm Project is to integrate handheld technologies with the academic curriculum, organizational needs, and research efforts of the School of Medicine over the 2000–2001 academic year. This paper session will describe the scope of the project, implementation, funding, development, evaluation, and integration of this new technology in the medical school curriculum and library environment. Due to limited funding, Lane has initiated collaborative efforts with the medical school and with software companies that have afforded the project resources that were previously unavailable. Currently, Lane is partnering with Virtmed and Firepad.com. We are also involved in ongoing discussions regarding codevelopment with other PalmOS software development companies. Downloads already available include: contact lists for classmates and administrators, electronic "flashcards," and lecture schedules. Projects being considered for development include histology images, educational games, medical center maps, a data collection and evaluation program, teaching assistant handouts, and information for downloading with Stanford's Curriculum Web Project. We are stepping further into a new era of education, an era in which huge amounts of information will be portable, searchable, and available at the touch of a button. These groundbreaking efforts in codevelopment of technology and education resources have bolstered the library's position as an education and information technology structure essential to both academia and industry. Through Lane Medical Library's leadership in collaboration with industry, Stanford University School of Medicine is moving forward in development and deployment of handheld computers in medicine and medical education.

## Library express: a case study in developing a Web-based system to deliver inhouse journal articles electronically

**Daniel C. Barkey, M.B.A.,** head, Information Systems; **Ulrike Dieterle,** head, Access Services; **Nathan Vack,** programmer; **Thomas Murray,** director; **John Luedtke,** director, Computer Services; **Dirk Herr-Hoyman,** project manager; and **Diane Landry,** programmer; University of Wisconsin–Madison

The Health Sciences Libraries and the Engineering Library wanted to offer electronic delivery of journal articles that existed in the print collection. In the envisioned system, users would enter their requests in a Web page; the request would get routed to the library; library staff

would pull the article from the collection, scan the article in Adobe Acrobat pdf format, and then deliver the pdf to the user. An order request and fulfillment system, with authentication, needed to be developed. The Division of Information Technology (DoIT) was recruited to assist in the development. A "shopping cart" type application was developed; DoIT wrote the user authentication, article request and payment front-end, while the Health Sciences Libraries wrote the order fulfillment and processing back-end. This paper will explore the process of how the two libraries and DoIT developed program specifications, sought funding, and integrated program coding. In addition, this paper will explore how campus-wide print collections can be more fully utilized, and the features of the system that enable the efficient routing, retrieval, and production of electronic documents.

## Voyages into New Ways of Educating Users

### National Program Committee
Tuesday, May 29, 2001, 2: 30 p.m.–4: 00 p.m.

### The odyssey from end-user library instruction to educating users to be successful producers of scientific information

**Ann C. Weller, AHIP,** deputy director, and **Carol Scherrer, AHIP,** head, Information Services, Library of the Health Sciences, University of Illinois–Chicago

Purpose: To propose that health sciences librarians support the educational mission of their institutions by expanding their role to instruct students and health professionals in becoming sophisticated producers and users of scientific information.

Setting: The advent of electronic access to information has seen librarians increase their role within their institutions, particularly through teaching beyond the traditional areas of instruction of database content and end-user searching. Librarians are now active in a variety of forums such as serving as liaisons to academic departments or on curriculum committees and participating in clinical grand rounds and evidence-based medicine programs.

Brief Description: Through experience, health sciences librarians have learned about the scientific publication process. While Ph.D. students learn about publishing through their graduate studies, often other health professionals do not. There is no department (outside journalism) that devotes itself to the art of publication. This gap presents an opportunity for librarians. This talk describes the activities at an academic health sciences center where librarians have taught about the scientific publication process in a variety of formats including classroom instruction, professional education programs, and campus symposia. Topics covered include: the quality of journals, the structure of a scientific article, evaluation of research articles, the process of editorial peer review, the use of the instructions-to-authors, copyright issues, and the publication process itself.

Results/Outcome: These activities have increased librarians' visibility on campus and have placed librarians in an exciting new role of recognized experts on the scientific publication process. Librarians are increasingly approached by faculty and staff to provide classes or symposia on these topics. The next step is to incorporate classes of this nature with other library classes offered to users.

Evaluation: As access to electronic information becomes almost universal, an understanding of the literature and the means to evaluate it is very important. The degree to which librarians can expand their instructional roles is a measure of success. Each class or seminar is evaluated using a customized evaluation form. Evaluations are used to improve the classes and identify new areas where information is needed.

### Can we prove that medical students can be taught to search MEDLINE effectively?

**Kathryn W. Nesbitt, AHIP,** coordinator, Education Services, Edward G. Miner Library, University of Rochester Medical Center, Rochester, NY; and **Jan Glover, AHIP,** education coordinator, Cushing Whitney Medical Library, Yale School of Medicine, New Haven, CT

Purpose: Evaluate the impact of training sessions on effective searching behaviors by analyzing students' MEDLINE strategies.

Methodology: During the first year of medical school, this longitudinal cohort study tracked 100 medical students' ability to search Ovid Web MEDLINE. After a one-hour hands-on MEDLINE training session in their first course, all students searched the same question. Search strategies were analyzed for specific search tactics compared to a gold standard strategy. After a session reviewing best strategies to answer the initial question, the students were given a second search question as a take-home exam. These strategies were analyzed and graded against a gold standard strategy. During the second semester, students attended a demonstration on advanced MEDLINE-searching skills. Following that, all students had a forty-five-minute session with a librarian to review their searches based on a question arising from a clinical encounter. Due to the volume and variation in individual questions, they were not graded against gold standards. Another standard search question was given to all students and those strategies were graded. In order to evaluate the student strategies, a coding instrument was created to gather information about student search tactics. A scoring mechanism was devised to grade the students' skills based on their ability to conduct appropriate tactics to answer the search question.

Results: All students received feedback on their own strategies and an answer sheet and other tips for common errors. Preliminary data indicates that there was an increase in the use of appropriate tactics between their first and second exercises. Further data analysis will be presented tracking the variations of students' tactics between the assignments.

Discussion/Conclusion: Attention was given to specific teaching points to see if the students could incorporate these tactics appropriately into their search strategies. The coding instrument and scoring mechanism allowed librarians to evaluate searching skills of students. Librarians were also able to use the overall scoring results to focus their training and feedback tips. Most students correctly applied the teaching points in their search strategies. This coding/scoring instrument will be useful for others who are attempting to quantify student searching abilities for grading purposes.

## Beyond databases: collaboration to teach students how to write more effective literature reviews and theses

**Diana J. Cunningham,** associate dean and director, and **Janet A. Ohles,** head, Information Services, Medical Sciences Library, New York Medical College–Valhalla

Purpose: This paper reports on the New York Medical College pilot program to better prepare graduate students to effectively search, document, analyze literature, and write theses.

Setting/Participants/Resources: A metropolitan/suburban academic medical center with graduate schools in the basic biomedical sciences and health sciences. Case studies focus on master's level students required to write scientific or research papers at established university standards in two graduate schools.

Brief Description: Both graduate schools were receiving papers, literature reviews, and theses at minimal levels of standards. In response, the Medical Sciences Library faculty collaborated with university faculty to develop a two-prong program for master's level students in the Graduate School of Health Sciences (GSHS) and Graduate School of Basic Biomedical Sciences (GSBMS). The former focused on quality searching, analyzing, and writing of research papers and theses in health policy and management. The latter focused on students writing master theses centered on literature reviews. The pilot of this latter seminar series was conducted in spring 2000 and included a four-part, eight-hour series. Components included pretest and posttest, how-to guides, citation formats, effective use of terminology, and prefiltered Websites. Components were developed in both pdf and HTML formats and link through the library's Website. As part of the program, both APA and AMA citation formats were presented. While focused on the outcomes, library faculty incorporated effective search skills, qualitative analyses, and components of a literature review into the teaching units.

Results/Outcome: Educational outcomes are central to the university's strategic plan. This program demonstrates outcomes. Both pilots have been extremely well received by faculty and students. The GSHS program has been incorporated into the initial survey course, public health course, and thesis-preparation program. Students have requested repeat sessions for the GSBMS units.

Evaluation Method: Formal pre- and posttest evaluations were given to the GSHS students. Students also completed open-ended evaluations. System counts from Internet hits confirm use by students. Online users are also prompted for follow-up assistance.

## An informatics course for first-year pharmacy students

**Gail Persily,** assistant director, Informatics Education; **David J. Owen, Ph.D.,** education coordinator, Basic Sciences; Library and Center for Knowledge Management; and **Patricia Babbitt, Ph.D.,** associate professor in residence, Department of Biopharmaceutical Sciences; University of California–San Francisco

Purpose: This paper will report on the development and delivery of a required course in pharmacy informatics for first-year pharmacy students.

Setting/Participants/Resources: The University of California–San Francisco (UCSF) School of Pharmacy recently redesigned its curriculum to create a program that prepares Pharm.D. graduates for the changing health care environment. The new curriculum emphasizes the role of pharmacists as information providers and the importance of lifelong learning.

Brief Description: As part of its new curriculum, the School of Pharmacy included a first-year course focusing on informatics topics of relevance to pharmacists. Suggestions for course content were solicited from individuals representing different aspects of pharmacy informatics at UCSF including faculty, librarians, hospital information systems experts, and basic science researchers. The course set as its goal "training tomorrow's pharmacists in the fundamentals of practicing pharmacy in the informatics age." Topics covered included bibliographic and other information resources, fundamentals of databases and database design, and pharmacy information systems. Guest speakers were brought in to discuss implementations of systems relevant to pharmacy, while librarians provided lectures on database structure and design, and pharmacy information resources. Hands-on computer lab sessions accompanied most of the lectures and were an important component, providing a central element of the course. In the laboratory, students were trained to use major drug information software, to create Web pages to simulate responses to patient queries, and to understand the application of a clinical pharmacy database; librarians provided training in the use of the Microsoft Access software.

Results/Outcome: The Introduction to Pharmacy Informatics course offered to students in the spring of their first year provides a comprehensive overview of informatics topics as they relate to the practice of pharmacy. In spring 2001, this course will be taught for the second time. The library is working with the faculty to improve on its sections of the course.

Evaluation Method: The student evaluations of the course and its lecturers are closely reviewed to guide planning for the next session of the course. A review and revision of lectures and emphasis is planned before the course is offered in the spring 2001 quarter.

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CONTRIBUTED PAPER/INVITED SPEAKERS SESSIONS

### Speaking Plainly: Meeting the Health Information Needs of Low-Literate Consumers

### Consumer and Patient Health Information and Relevant Issues Sections
TUESDAY, MAY 29, 2001, 2: 30 P.M.–4: 00 P.M.

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## Consumer Health Information Links for Éveryone (CHILÉ): collaborating with community partners to provide health information to consumers

**Jeanette C. McCray, AHIP,** deputy director; **Rachael K. Anderson, AHIP,** director emerita; **Gerald J. Perry, AHIP,** head, Information Services; **Patricia A. Auflick,** access services librarian; **Joan B. Schlimgen,** head, Access; **P. Zoë Stavri, Ph.D.,** coordinator, Research Activities; Arizona Health Sciences Library, University of Arizona–Tucson; **Joan Biggar,** managing librarian, and **Karen Greaber**, reference librarian, Tucson-Pima Public Library, Tucson, AZ

Purpose: To improve access to health information resources for the people of our community and to develop a sustainable, working partnership between the Arizona Health Sciences Library (AHSL) and the Tucson-Pima Public Library (TPPL). This presentation will discuss progress made in the first year.

Setting/Participants/Resources: AHSL is the state's largest academic health sciences library. In addition to providing services and resources to its academic clientele, AHSL also delivers services to health care professionals and people around the state and backs up hospital and other librarians. TPPL is a city and county funded library system, which offers a full range of services to both large metropolitan and isolated/rural communities. TPPL enjoys a high degree of use: 54% of the population (824,000) are active registered borrowers. Ethnic groups represented include Hispanics (24%), African Americans (3.1%), Native Americans (3.0%), and Asian/Pacific Islanders (1.8%).

Brief Description: The CHILÉ project aims (1) to position the public library as the logical first point of contact for the consumer of health information in our county and (2) to back up the front-line public librarians with appropriate ongoing training; a sophisticated, growing, locally targeted Website; and streamlined access to the wealth of resources at the academic health sciences library.

Results/Outcome: Public librarians will be better informed about health information resources on the Internet and in the community and are more confident in their ability to respond to consumer queries. Authoritative health information resources tailored to the needs of the community will be available electronically. Consumers will have more ready access to health information at their branch library. Access to the resources of AHSL are available to consumers with more sophisticated needs.

Evaluation Method: Evaluation focuses on testing the confidence of public librarians in answering health information questions, before and after training. Usability studies of the consumer health information Website as it is developed is also planned.

## Health literacy in practice: efforts and resources

**Jill M. Dotts,** executive director, State Literacy Resource Center, Florida Literacy Coalition–Orlando; and **Sandy Newell,** library program specialist, State Library of Florida, Bureau of Library Development, Tallahassee, FL

This presentation will discuss health literacy efforts that work, from the lowest level of general awareness to a higher level of effort, such as conscious efforts to revise labels on pill bottles. It will also share examples of current resources available, such as the *Health Literacy Compendium* published last year and a new video produced by Harvard University this year, called *In Plain English,* which is geared toward generating an understanding of health and literacy problems and solutions for those in the health field.

## The next step: meeting the health information needs of consumers through established community organizations

**Carol Scherrer, AHIP,** head, Information Services, and **Donna Berryman,** resident librarian, Library of the Health Sciences, University of Illinois–Chicago

Purpose: This paper reports on a project that sought to empower community grass-roots organizations by providing access to information pertinent to environmental health issues threatening local communities. Lessons learned can be applied to outreach projects to groups that serve a low-literacy population.

Setting/Participants/Resources: Librarians sought to expand their services to consumers via organizations whose mission was to improve the health of their communities through education and preventative measures, especially in the area relating to the environment. These areas included lead poisoning and asthma. Seven inner-city organizations that had already experienced some success in their communities solving environmental health issues, were provided with computers and training through a train-the-trainer model. Training covered Internet access, searching, and locating pertinent health information

Brief Description: Provision of health information to consumers is generally thought of as a service to individual patients facing an immediate health issue. Consumers, however, can also be successfully served through groups seeking to provide preventative services for their communities. Librarians trained local leaders in searching the Internet for information to support their existing environmental health activities. An email discussion list was established for the organizations to communicate easily among themselves, and a Web page was designed to organize environmental information sources. Challenges arising from working with organizational leaders who have low computer skills made the project a new learning experience for librarians and these leaders.

Results/Outcome: While problems with computers and with training schedules were anticipated, serving those with low computer skills proved to be more complex than librarians had anticipated. Some sites were more successful than others. Factors that contribute to their success are explored.

Evaluation Method: Evaluations were conducted after every training session. A focus group to evaluate the entire project was held at the end of the project period. This paper enumerates the lessons learned by librarians who extend their outreach to groups not usually served by the academic community.

## IAIMS Then and Now: An Informatics Odyssey

### History of the Health Sciences and Medical Informatics Sections
TUESDAY, MAY 29, 2001, 2: 30 P.M.–4: 00 P.M.

## IAIMS: what we got right and what we didn't

**Wayne J. Peay,** director, Spenser S. Eccles Health Sciences Library, University of Utah–Salt Lake City; and **Rachael K. Anderson, AHIP,** director emerita, Arizona Health Sciences Library, University of Arizona–Tucson

In 1982, Nina Matheson's "Academic Information in the Academic Health Sciences Center. Roles for the Library in Information Management"

defined the agenda for a generation of academic health sciences librarians. The subsequent investments by the National Library of Medicine (NLM) explored, what turned out to be, the many facets of IAIMS planning and implementation. The presenters participated in the first NLM funded IAIMS projects at Columbia University and at the University of Utah. They will discuss both the successful and less than successful IAIMS efforts, lessons learned, and possible future directions.

## A mutually beneficial impact of IAIMS on the University of Medicine and Dentistry New Jersey (UMDNJ) libraries' strategic planning process: what's in it for the libraries?

**Laura P. Barrett, AHIP,** IAIMS coordinator and managing librarian; **Victor A. Basile, MPA,** university librarian and IAIMS co-director; and **Judith S. Cohn,** assistant university librarian and co-chair, IAIMS Planning Committee; George F. Smith Library, University of Medicine and Dentistry New Jersey–Newark

Purpose: Describe the positive influence and results of two simultaneous processes. The impact of IAIMS planning and the university libraries strategic planning processes at an academic health sciences institution is described.

Setting/Participants/Resources: The University Libraries of the University of Medicine and Dentistry of New Jersey serve eight health sciences schools on six campuses located throughout New Jersey, in addition to distance learners throughout the United States. The university librarian was both the principal investigator and a co-director of an IAIMS Strategic Planning Grant.

Brief Description: The participation of the university libraries administration and staff on the university-wide IAIMS Strategic Planning Committees fostered regular contact with key university information technology and academic administrators. These individuals were able to implement technology infrastructure enhancements essential to the implementation of university libraries goals, which in turn became part of the university's Information Technology Strategic Plan. The ongoing contact also resulted in university libraries administrators being appointed to other technology advisory committees of the university that control the dispersal of funds for other relevant projects.

Results/Outcome: Essential technology infrastructure enhancements necessary to the implementation of a new Web-based integrated library system, as well as other university libraries technology and facility renovation initiatives, have occurred. Funding has been secured for significantly expanded electronic full-text resources.

Evaluation Method: The university awaits notification of award of an IAIMS Operational Phase Grant from the National Library of Medicine in recognition of its readiness to implement its university-wide Information Technology Strategic Plan. The plan incorporates ambitious targets for the university libraries, and establishes a center for health informatics that the university libraries will support with training and services.

## Library contributions to IAIMS

**Nancy K. Roderer, AHIP,** director, Welch Medical Library, Johns Hopkins Medical Institutions, Baltimore, MD; and **Regina Kenny Marone, AHIP,** director, Cushing/Whitney Medical Library, Yale University, New Haven, CT

Health sciences libraries have been key participants in IAIMS and have both contributed to and been affected by its goal of integrated information management in a variety of ways. This presentation starts from the perspective of contributions that libraries have made to IAIMS, tracing the roles described in the Matheson-Cooper report and their evolution over the years. Based on personal observation and a review of the literature, areas of contribution are described. Related benefits to the library are also identified. Libraries have been actively involved in the incorporation of scholarly resources into the overall information flow addressed by IAIMS. Through these efforts, they have modeled the development of new systems that enhance information flow. Librarians have direct experience with the information behaviors of a wide range of users and contribute this perspective to the overall effort. Similarly, library expertise in the area of the organization of information has been useful in creating more integrated systems. Libraries have benefited from IAIMS not only through the development of new systems but also through the broader exposure of faculty, students, and staff to library services. Libraries generally bring an institution-wide perspective to issues and problems in the decentralized academic medical center. Another contribution that they have made to the IAIMS efforts stems from their formal and informal relationships with a wide range of organizational units. This has worked both ways, also serving to enhance the library's relationships with other units. Closer affiliation with information technology units in particular has often meant a healthy dialog about the rights and responsibilities of both users and service organizations and of alternative funding models for information activities. The result, greater creativity and flexibility in funding mechanisms, has benefited all of the participants in IAIMS, including libraries. Finally, libraries have provided leadership to IAIMS, as in several institutions where the library director has been the IAIMS principal investigator. Alternately, they have served as catalysts, providing a neutral territory in which different organizational units can work together. Recognition of these forms of leadership has served to enhance the perception of the library in the institution.

## IAIMS: the next generation

**Valerie Florance Ph.D.,** program officer, National Library of Medicine Extramural Programs, Bethesda, MD

INVITED SPEAKER SESSIONS

### A Publishing Odyssey: What Medical Librarian Authors and Journal Purchasers Need to Know

### Hospital Libraries and Leadership and Management Sections
TUESDAY, MAY 29, 2001, 2: 30 P.M.–4: 00 P.M.

Speaker: **T. Scott Plutchak,** editor, *Bulletin of the Medical Library Association,* and director, Lister Hill Library, University of Alabama–Birmingham

The *Bulletin of the Medical Library Association* is the premier journal presenting peer-reviewed articles concerning the issues that matter to health sciences librarians. During its ninety-year history, the journal has gone through numerous evolutions. As the journal prepares to make

the transition to providing full electronic content, its current editor will discuss its present scope and range, desired focus of articles, acceptance rates and advice for successful submissions, with particular emphasis on the literature of hospital librarianship.

Speaker: **M. Sandra Wood,** editor, *Medical Reference Service Quarterly* and *Healthcare on the Internet,* and librarian, Reference and Database Services, Harrell Library, Milton S. Hershey Medical Center, Pennsylvania State University–Hershey

*Medical Reference Services Quarterly (MSRQ)* covers topics of current interest and practical value in the areas of reference in medicine and related specialties, the biomedical sciences, and nursing and allied health. It is a practice-oriented journal that covers reference and information services in all types of health sciences libraries, with emphasis on database and online searching, user education, and medical informatics. *MRSQ* is a peer-reviewed journal, now in its 20th volume. *Health Care on the Internet (HCI)* is a relatively new journal that deals with finding consumer health information on the Internet. Articles are geared toward both librarians and consumers. HCI is a non-peer-reviewed journal, currently in its 4th volume. Each of these journals has its own niche in the range of publications available for health science librarians or authors to submit their manuscripts. The editor of these journals will discuss the types of papers that are appropriate to submit to each journal, the review process, what authors can do to increase the likelihood of acceptance, the editing process, and author and editor interactions.

Speaker: **Carole M. Gilbert, AHIP,** editor, *Journal of Hospital Librarianship,* and director, Library Services, Helen L. DeRoy Medical Library, Providence Hospital and Medical Center, Southfield, MI

The *Journal of Hospital Librarianship (JHL),* the only journal dedicated to hospital librarianship made its debut in January 2001. It is intended for the practicing hospital librarian and others who organize and disseminate health information to both the clinical health care professional and to the consumer. The goal of the Editorial Board is to provide in-depth articles on issues, to provide practical tools and innovative strategies, and to provide practicing librarians a venue in which to publish. In addition to peer-reviewed articles, *JHL* includes seven regular columns intended to provide information of current interest, provoke reactions from readers, and provide a forum for the exchange of ideas. Hospital librarians are encouraged to submit a column or an article.

Speaker: **Katherine Stemmer-Frumento,** editor, *National Network: Newsletter of the Hospital Libraries Section of MLA,* and director, Library Services, Gray Carter Medical Library, Greenwich Hospital, Greenwich, CT

Speaker: **Barbara J. Henry, AHIP,** community health librarian, Community Health Library, Eugene DuPont Preventative Medicine and Rehabilitation Institute Wilmington, DE

*National Network: newsletter of the Hospital Library Section (NN)* has been the major method that HLS members have used to communicate with each other regarding section business, news, tips, and opinions. Since its establishment in 1977 by then Hospital Libraries Interest Group chair, Lois Ann Colaianni, *NN* has grown from a two-page typewritten, photocopied newsletter to a professionally designed and printed newsletter with paid advertisements, averaging 36–40 pages per issue. *NN* offers opportunities for both novice and experienced writers to share their ideas with fellow hospital librarians.

Speaker: **Scott Garrison,** editor, MLANET, and operations manager, Health Sciences Library, University of North Carolina–Chapel Hill

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### Mapping the Literature: From Theory to Adaptation and Implementation

### Nursing and Allied Health Resources, Chiropractic Libraries, and Collection Development Sections and Complementary Medicine SIG
Tuesday, May 29, 2001, 2: 30 p.m.–4: 00 p.m.

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### Bibliographic topography: efforts to assess the lay of the land

**Barbara Frick Schloman, Ph.D.,** AHIP, assistant dean and professor, Library Information Services, Libraries and Media Services, Kent State University, Kent, OH

The Nursing and Allied Health Resources Section (NAHRS) began a collaborative project in 1993 to map the literature of allied health. The allied health professions were recognized as essential components of the health care delivery system, but as having literatures that were less understood by librarians than those of the major health disciplines. Key project objectives were to identify the core journals used by a given allied health field and determine the extent of indexing coverage of those journals. This was seen as a real-world research project that could aid librarians in developing appropriate collections, working with allied health clientele to inform them of their core literature and its access, influencing database producers to increase indexing coverage, and refining standard lists using empirical data. This paper will discuss the common bibliometric research protocol used and findings across the twelve fields investigated.

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### Cartographers of nursing literature: gathering the data for the mapping project

**Susan K. Jacobs,** health sciences librarian, Elmer Holmes Bobst Library, New York University–New York

The Nursing and Allied Health Resources Section of MLA Task Force on Mapping the Literature of Nursing is using a bibliometric methodology to identify the core literature of nursing and the coverage of these journals by major databases. Modeled on the successful Task Force on Mapping the Literature of Allied Health, the results will provide a useful tool for librarians involved in collection development, reference, and instruction, as well as guidelines for nursing researchers. Issues to be addressed include a discussion of the relationship between nursing research and clinical practice, an overview of the ongoing nursing project, a description of the methodology used, discussion of the practical aspects of dividing nursing into subspecialties, the process of data collection and determining database coverage, communication among task force members, the unique characteristics of the highly interdisciplinary nursing literature, and some preliminary results.

## Evaluation of veterinary medicine and toxicology collections in an academic library

**Jill Crawley-Low,** head, Veterinary Medicine Library, University of Saskatchewan–Saskatoon, Canada

Purpose: This paper will report on the use of brief tests to evaluate two subject collections, veterinary medicine and toxicology, in an academic library.

Setting/Participants/Resources: The Veterinary Medicine Library, University of Saskatchewan, supports the research and teaching needs of faculty, staff, and students in one of Canada's four veterinary schools. The evaluation of the veterinary medicine and toxicology collections was required as part of a campus-wide program review of all disciplines taught at the university.

Brief Description: Collections librarians in academic libraries are often asked, on short notice, to evaluate whether their collections are able to support changes in the university's curriculum (i.e., new courses or revisions to existing courses). With insufficient time to perform an exhaustive critique of the collection, a selection of reliable, but brief, quantitative and qualitative tests is needed to adequately describe the strengths and weaknesses of the collection.

Results/Outcome: The methodology developed for evaluating two specific-subject collections can be applied to other science, technology and medicine collections.

Evaluation Method: The subject areas of veterinary medicine and toxicology were evaluated using the following methods: citation analysis, list-checking, classified profiles, circulation data, and interlibrary loan records.

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### Odyssey to the Unknown: Research in Toxicology

### Veterinary Medical Libraries Section
TUESDAY, MAY 29, 2001, 2: 30 P.M.–4: 00 P.M.

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## Environmental contaminants and embryos: is there a problem?

**Louis J. Guillette, Jr., Ph.D.,** professor, Department of Zoology, University of Florida–Gainesville

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## Health risks from contamination: a global issue

**Elizabeth A. Guillette, Ph.D.,** visiting scholar, Center for Bioenvironmental Research, Tulane University, New Orleans, LA, and visiting professor, Interdepartmental Honors, Center for Bioenvironmental Research, Tulane University, Gainesville, FL

Contamination is no longer regarded as local issue. Man-made chemicals can be found in every person, including those living far away from the site of chemical origin. The impacts of contamination on human health are difficult to study. Our original knowledge is based on adults exposed during work or industrial accidents, with an emphasis on the rates of cancer and blood diseases. Reproductive problems, in both men and women, are now being noticed, along with an increase, and the lowering of the age, in which the diseases of aging occur. Discovery of decreased intelligence occurring in children whose mothers used contaminated cooking oil and high rates of infection among Inuet children living far from agriculture and industry redirected research. Normal appearing children, living in towns in an agricultural region of Mexico, were found to have multiple types of mental and physiological deficits, including lack of stamina and coordination, along with difficulties in problem solving and memory. Sources of chemicals that interfere with normal function extend far beyond the dioxins produced by industry and agricultural chemicals. Artificial fragrances, flame-resistant materials, pressurized wood for decks and play equipment, and even magic markers are all suspect. Very few of the compounds used in modern society are thoroughly tested for safety. Equally important is that the possible outcomes of exposure to these compounds is unknown. We do know that many of these compounds are passed from mother to the unborn child. Our concerns should be for both the present and the future.

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## Toxicology information resources

**Philip Wexler,** technical information specialist, Toxicology and Environmental Health Information Program, National Library of Medicine, Bethesda, MD

The National Library of Medicine's (NLM) Toxicology and Environmental Health Information Program (TEHIP's) has served as an extensive storehouse of toxicology information for over thirty years and has proved an innovator in exploring computer technologies to make its data readily accessible to users. This presentation will focus on the databases available through TEHIP's TOXNET system. Among these are the Hazardous Substances Data Bank, the Integrated Risk Information System, TOXLINE, the Toxic Chemicals Release Inventory, and ChemID*plus.* Bibliographic, factual, toxic release, and nomenclature databases work in concert to provide a full complement of toxicological information resources. Searching for this information through the TOXNET Web interface will be described as will recent and imminent developments, such as the restructuring of TOXLINE. Additional relevant NLM databases and supplemental information available on the TEHIP web site will also be reviewed, as will TEHIP's plans to create a consumer-oriented environmental health Web page. Finally, there will be a quick look at the multitude of toxicological resources available outside of NLM.

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### CONTRIBUTED PAPER SESSIONS

### Education Outside the Classroom 2: Decision Support and Information Systems Training in Clinical Settings

### Educational Media and Technologies, Medical Informatics, Hospital Libraries, Leadership and Management Sections
WEDNESDAY, MAY 30, 2001, 9: 00 A.M.–10: 30 A.M.

## Organizing and providing access to digital videos: patient interviews by medical students

**Daniel C. Barkey, M.B.A.,** head, Information Systems, Health Sciences Libraries; **Christine Seibert, M.D.,** assistant professor, Medical School; **Selma Van Eyck, Ph.D.,** assistant dean, Academic Affairs, Medical School; and **Laura Zakowski, M.D.,** assistant professor, Medical School; University of Wisconsin–Madison

Purpose: This paper will report on the use of the Web as a framework for delivering and organizing digital videos of medical students performing a patient interview.

Setting/Participants/Resources: Mock patient interviews were conducted in the medical school's simulated patient rooms. Twenty-two students and six faculty were selected as participants in this pilot project. The Health Sciences Libraries have facilities for digital video production and Web back-end management using an NT Web server, Microsoft Access, and Cold Fusion Web application development.

Brief Description: Each year the Patient, Doctor and Society (PDS) course videotapes medical students interviewing patients. Faculty must come to the PDS Office during regular business hours, check out the tape, and write an evaluation of the student's performance. Many of the faculty are located one mile away at the university hospital and find it difficult to schedule time to come into the office and watch the videotape. Making these videos available for viewing over the Web appeared as a solution to the time and distance problem. An access and organizational system was developed by the library to deliver the digital videos. Online evaluation forms, tied into a Web-accessible database, were developed to record student performance. Faculty log in to the system, where they can view videos of students assigned to them, and complete online evaluation forms. Library Research Services provided links to additional resources in the topic area. Issues to be addressed include: the library as development center for systems that organize and provide access to digital resources and the library's role in providing topical resources in a medical school curriculum.

Results/Outcome: This ongoing project is currently collecting feedback from faculty.

Evaluation Method: Faculty and student participants were given an online questionnaire

## Library support of personal digital assistants

**Mari J. Stoddard,** head, Education Services, Arizona Health Sciences Library, University of Arizona–Tucson

Medical libraries led the way in delivering professional information via paper, stand-alone personal computers (PCs), and Web-enabled computers. Recently health care journals from *Medical Economics* to *Annals of Internal Medicine* began reporting increased use of personal digital assistants (PDAs), such as PalmPilots and Pocket PCs, by health professionals. Thus, PDAs offer a new platform for delivering traditional library services. As with all new technologies, determining the best way to provide these services poses some problems. Yet the core mission of medical libraries—accurate and timely delivery of information that enhances the quality of health care, education and research—provides some pointers.

This library is currently examining six ways of delivering that kind of information:

1. providing a Web-based bibliography of PDA-related articles
2. offering in-library PC-to-PDA connections
3. evaluating and recommending Websites
4. evaluating and recommending reference works
5. providing training and troubleshooting
6. supporting self-directed learning via current awareness and CME

Evaluation of the need for and quality of these six methods range from counting users of the PC-to-PDA connections, measuring Web hits, doing classroom evaluations and follow-up interviews for training, and surveying the need for and use of self-directed learning on PDAs. Assessing which methods will best suit this new information-delivery platform will take several years. Some PDA-based library services will prove to be awkward or unsuitable; others will be obvious in hindsight. Yet, just as medical libraries found with paper, PCs, and the Web, this new technology offers many opportunities.

## A collaborative approach to developing a clinical trials Website

**Janis F. Brown, AHIP,** associate director, Educational Resources; **John T. Casagrande, Dr.P.H.,** clinical associate professor; **Scott Catherall,** MIS director; **Joan Mircheff,** SOMweb manager/media librarian; **Frank Salinas,** programmer analyst; and **Darcy Spicer, M.D.,** associate professor, Clinical Medicine; University of Southern California–Los Angeles

Purpose: Describes the collaborative approach used to develop a clinical trials Website for the University of Southern California's Health Sciences Campus.

Setting/Participants/Resources: University health sciences campus involving a team that includes the School of Medicine's assistant dean for clinical research and chair of the Institutional Review Board (IRB), members of the informatics group from the cancer center, the campus public relations director, and two librarians.

Brief Description: In early 1999, as part of its efforts in managing the School of Medicine Website, the library spearheaded a campus effort to create a clinical trials Website. This project involved creating a team whose members represent various groups from the school and who provided different areas of expertise for the project. The project evolved from focusing on only clinical trials to incorporating a system for entry and submission of IRB applications on the Web, maintaining a database of the approved projects, providing information about the IRB including its procedures and policies, managing the approved informed consent statements, and using the same database to make available summary descriptions of the campus' clinical trials to the public. After the initial development of the sites, the database and the Web pages derived from it are managed and maintained by the IRB.

Results/Outcomes: The resulting Websites are valuable resources for both university investigators and the IRB, as well as for potential patients trying to identify appropriate clinical trials. The process of developing these Web resources as a collaborative project has had both advantages and disadvantages over development by a single department.

Evaluation Method: The success of this collaborative project is measured by the satisfaction of the team members involved with the process.

## Use of Web-based library resources by medical students in community and ambulatory settings

**Nancy H. Tannery,** assistant director, Information Services; **Jill Foust**, reference librarian; **Amy Gregg,** reference librarian; **Linda M. Hartman,** reference librarian; **Alice B. Kuller,** reference librarian; **Paul Worona,** assistant director, Systems; Health Sciences Library System; and **Asher Tulsky, M.D.,** associate professor, Department of Medicine; University of Pittsburgh, Pittsburgh, PA

Purpose: Evaluate the use of Web-based library resources by third-year medical students.

Setting/Participants/Resources: Third-year medical students (147 in a twelve-week multidisciplinary primary care rotation in community and ambulatory settings.

Methodology: Individual user surveys, log file analysis of Website, Ovid use statistics.

Results/Outcomes: Twenty-two resource topics were compiled into a Website to provide students with access to electronic library resources from any community-based clerkship location. These topics, covering subjects such as hypertension and back pain, linked to curriculum training problems, 145 full text journal articles, 19 MEDLINE searches, electronic textbook chapters, and relevant Websites. On average, in each of the four twelve-week sessions, 700 articles were viewed, 40 MEDLINE searches run, and the Website received 4, 471 hits. More than half of the students (61%) accessed the Website on a weekly basis. More than 50% thought the Website was a valuable addition to their clerkship.

Discussion/Conclusion: Web-based information resources can provide curriculum support to students for whom access to the library is difficult and time consuming.

## Combining online instruction with traditional classroom training in the hospital setting: a case study

**Melissa L. Just, AHIP,** director, Library Services, Health Sciences Library, Childrens Hospital Los Angeles, Los Angeles, CA

Problem: In May 2000, the Health Sciences Library reinstituted a bibliographic instruction (BI) program after a one-year hiatus. The librarian began the new BI program with only one class: MEDLINE. The demand was so high that every class had a waiting list. During the summer, frequency of the classes was increased to almost once a week to accommodate more end users. In addition to the demand for the offered class, faculty and staff began to request classes on additional topics. Because the librarian is only onsite half time, it is difficult to fit many more classes into her schedule. In addition, the computer classroom is part of the information technology department and used by many hospital units. Finding available two-hour blocks of time requires scheduling months in advance.

Solution: In September 2000, the librarian began to investigate alternatives. Using the tenets of instructional design including developing a needs assessment and task analysis, defining learner and organizational characteristics, and considering different adult learning styles, she created a course on using EndNote. The newly developed course includes two components: (1) a short hands-on session in which the basics of the software are introduced and students are provided with the foundation on which to build extra skills, and (2) an online component that allows students to select desired skills to add to their foundation. EndNote lends itself particularly well to this model, because the components are not necessarily sequential and individual users can learn only the pieces needed to complete their own tasks. Because the online component is available anytime, anywhere, and can be completed in any order, this form of instruction is more suited for time-of-need learning.

Outcome: This paper will explain the development process and highlight the final product. Student reactions and system use will be discussed, and the pros and cons of the online and classroom combination versus classroom only instruction will be outlined.

### Exploring Our Future

### National Program Committee
WEDNESDAY, MAY 30, 2001, 9: 00 A.M.–10: 30 A.M.

## Instituting new library services: but how will we know if they are successful?

**Mary Beth Schell,** AHEC digital library technical development coordinator; **Kathleen McGraw,** information services coordinator; and **Margaret Eilene Moore,** director, Planning; Health Sciences Library, University of North Carolina–Chapel Hill

Purpose: This presentation will illustrate the important role that evaluation plays in instituting new service models by utilizing an evaluation undertaken at University of North Carolina (UNC)–Chapel Hill as a case study.

Brief Description: In August of 1999, the Health Sciences Library at UNC–Chapel Hill merged three service points: reference, circulation, and media into a single service point. This new service model was instituted with the goals of continuously improving the quality of library services, of making accessing services simpler and more convenient, and of integrating a range of onsite and remote user services. After the single service point had been operating for several months, an evaluation project was established to see if the single service point was meeting the stated goals. Traditionally, library service evaluations have relied upon different variations of user surveys. A critical point in the process was making the decision to focus on staff training and staff feedback of the new service model. This paper will include a discussion of the background behind that decision. It will also share other evaluation activities, it will briefly discuss the survey results, and it will discuss the difficulty in defining and evaluating "quality." The presentation will also include some specific examples of how the results of the evaluation were used to improve this new service model.

Results/Outcome: A surprising outcome was that the evaluation process proved to be an important step in creating high-quality service. The very act of closely examining the service model helped to improve just by raising awareness of the focus on quality. Some of the findings as presented in the final evaluation report are also being used to improve the operation of the single service point.

Methodology: The evaluation focused on three main areas defining high-quality service, assessing the staff's training for working at the single service point, and surveying the desk services staff regarding ways to improve service at the single service point. Two surveys were utilized in this evaluation. One instrument focused on staff training, and the other questionnaire focused on obtaining staff feedback into how to improve the single service point.

## Complementary and alternative medicine (CAM): where do health professionals get their information?

**David J. Owen, Ph.D.,** education coordinator, Basic Sciences; **Min-Lin Fang,** information services librarian; and **Gail Persily,** assistant director, Informatics Education; Library and Center for Knowledge Management, University of California–San Francisco

Purpose: The University of California-San Francisco (UCSF) library is currently involved in a cooperative project between librarians and faculty to build a suite of electronic complementary and alternative medicine (CAM) resources. To identify these resources and assess CAM information needs of UCSF faculty, we developed and implemented a Web-based questionnaire.

Setting/Subjects: This study surveyed a group of over 300 UCSF faculty members, comprising both clinicians and researchers, who had previously self-identified as being interested in CAM.

Methodology: Information was gathered using a self-directed, Web-based questionnaire. This was made available from the library's Website and announced via email. Results were analyzed using SAS.

Results: Preliminary results show the main areas of interest were herbal medicine (67.9%), relaxation exercises (51.8%), and acupuncture (48.14%). Other interesting findings include: 57% sought CAM information about once a month; subjects spend an average of thirty minutes looking for information, and the searches were frequently unsuccessful; 75% had used MEDLINE as the primary database for CAM information; less than 15% were aware of or had used CAM databases such as AMED. When asked about interest in learning more about CAM resources, respondents expressed a preference (44.44%) for computer-based instruction.

Discussion/Conclusion: Survey results are being used to identify resources on topics and services of interest to the campus community and to begin mapping the CAM literature. Clinicians and researchers seek CAM information from a variety of sources, making heavy use of personal contact with colleagues. If print and online resources are used, it is primarily restricted to ones with which they are already familiar (i.e., MEDLINE and *JAMA*). Very few use, or are familiar with, specialized CAM resources, either in print or on the Internet. Clearly, these preliminary results demonstrate a need for further education and services. Further implications of these findings for libraries and librarians are discussed.

## Evaluating the evidence: creation of gold standard practices for searching and filtering the biomedical literature

**Rebecca N. Jerome,** coordinator, Clinical Informatics Consult Service; **Kimbra Wilder Gish,** administrative librarian; and **Nunzia B. Giuse, M.D.,** director; Eskind Biomedical Library, Vanderbilt University Medical Center, Nashville, TN

Purpose: Describe a foundational philosophy for developing and sustaining a gold standard practices approach to searching and filtering the biomedical literature.

Setting/Participants/Resources: While incorporating evidence into practice and optimizing resource utilization are important concerns in today's health care climate, the proliferation of the medical literature presents a significant challenge to clinicians in assessing evidence for best practices. This large academic health sciences library facilitates the integration of information into the medical center's processes and practices through the librarians' provision of customized, filtered information packages for clinical and research teams

Brief Description: As we attempt to expand librarian expertise into settings beyond the library's walls, we must be able to guarantee a level of competency embraced by all librarians. To achieve this goal, the library has developed two professional conferences as mechanisms for the diffusion of searching and filtering skills among all librarians: SearchTalk and the Filtering Teaching Conference (FTC). In SearchTalk, librarians meet bimonthly to explore resources in response to actual clinical and research questions and develop gold standard search strategies for each question. The FTC adapts this model to the development of gold standard practices for evaluating study design, weighing evidence provided by articles, and summarizing information properly. In both conferences, the gold standard is not generated by an individual but by the whole team via consensus. Rather than two or three experts operating in isolation, these sessions have made it possible over the last two years to increase the competency of all librarians in these areas.

Results/Outcome: By promoting gold standard practices for staff searching and filtering of the biomedical literature, participation in these sessions equips librarians to function as proactive, trusted members of clinical and research teams. While the librarians may have disparate levels of skills initially, we expect that the conferences will reduce variance among individual proficiencies

Evaluation Method: In ten sessions of the paired conferences, we will collect search strategies, article summaries, and filtered articles from the fourteen participants. The data will be used to evaluate this method as we assess participants' improvement via progression toward the gold standard over the course of the sessions.

## Medlane project/XMLMARC update: from MARC to an XML database

**Dick R. Miller,** head, Technical Services, and systems librarian; **Kevin Clarke,** digital information systems programmer; **Mary Buttner,** digital information manager; and **Rebecca Wesley,** digital materials librarian; Lane Medical Library, Stanford University Medical Center, Stanford, CA

Purpose: This paper will report on current status of an investigation of comparative approaches to making bibliographic and authority data converted to XML available on the Web. In general, this is a feasibility study to judge how quickly this new technology can supplant traditional catalog access.

Setting/Participants/Resources: Lane Medical Library, Stanford University Medical Center, is a large, academic health sciences library in an urban setting. As part of its transformation to a digital library, Lane is conducting an experimental effort to develop access to XML-based bibliographic and authority data.

Brief Description: In late 1999, Lane released XMLMARC software, which converts MARC data to any predefined XML format. Building on this successful format conversion, staff are attempting to identify the best method of making its cataloging/metadata available in an XML database for integrated access along with other Web resources. Relational, object-oriented, and native XML databases are currently under study.

Results/Outcome: As emerging technology is involved, results are unpredictable. Sufficient progress has been made with two options, that we are confident useful results will be available by May 2000.

Evaluation Method: Databases that prove generally viable and have respectable response times will be added as test databases to our Website for open testing. An evaluation form will be included for each.

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## From Idea to Research Plan: How to Get Started

### Research, Consumer and Patient Health Information, and History of the Health Sciences Sections
WEDNESDAY, MAY 30, 2001, 9: 00 A.M.–10: 30 A.M.

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## Using consumer health information to enhance knowledge and attitudes of parents with a low birth weight child admitted to the neonatal intensive care unit

**Don H. Buchanan,** coordinator, Health Resource Centres, Hamilton Health Sciences Corporation, Hamilton, ON, Canada

Purpose: Presenting an overview of how a consumer health information service can work with a clinical program and patient educators to evaluate an intervention utilizing consumer health information.

Setting/Subjects: 300 parents of consecutive admissions of premature infants weighing less than 1,000 grams, admitted to a neonatal intensive care unit in an academic health sciences center.

Methodology: Experimental design, utilizing random block assignment of parents to one of three interventions, namely routine patient education, routine patient education plus a book on prematurity, or routine patient education plus introductory exploration of Internet Websites on prematurity. Measures include pre- and post-test of knowledge and post intervention questionnaire.

Results: Study is presently underway, and no results are available. Presentation will focus on preliminary issues such as design of study, developing budgets, preparing a research proposal, finding funding, and analysis of your results. Emphasis will be on developing research from "non-researchers" (i.e., research from librarians in partnership with clinical programs).

Discussion/Conclusion: Medical librarians, especially those involved in the provision of consumer health information, have an important role in developing research into the efficacy and effectiveness of consumer health information. Developing the evidence for the effectiveness of consumer health information has lagged behind many other interventions, and we will discuss some of the reasons for this, Finally, we will share lessons learned during the development of a major trial of consumer health information interventions.

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## Humor amidst the otherwise serious pursuit of research

**Jonathan D. Eldredge, Ph.D., AHIP,** chief and assistant professor, Health Sciences Center Library, The University of New Mexico–Albuquerque

Purpose: To relay practical principles for conducting research through humorous examples.

Setting/Subjects: The author's own experiences enhanced with other researchers' humorous experiences.

Methodology: Case studies based upon researchers' experiences.

Results: To be reported fully at the time of the presentation. Preliminary results suggest that the principles of correct methods for the following research protocol can be learned from researchers' experiences: (1) Reducing human bias in the initial research design and hypotheses. (2) Selection of a representative population for an attitudinal survey. (3) Researchers need to understand their data.

Conclusions: To be reported fully at the time of the presentation. Preliminary results point to the serious lessons on proper research techniques learned from other researchers' humorous mistakes.

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## Back to the future: results of a three-year study on BackMed

**Cynthia Y. Burke, AHIP,** assistant professor and librarian, School of Nursing, Hampton University, Hampton, VA

Purpose: To report the financial and service impacts of using the BackMed, an electronic duplicate exchange list, from April 1998 through April 2001.

Setting/Subjects: Hampton University School of Nursing Library and the BackMed email discussion list.

Results: Will report money saved, reciprocation rates, and other data.

Discussion/Conclusion: Pros and cons of using BackMed.

# The Digital Library: Reality or a Galaxy Away?

## Technical Services, Collection Development, and Federal Libraries Sections
Wednesday, May 30, 2001, 9: 00 a.m.–10: 30 a.m.

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## CORC-it: models for integrating electronic resources into medical library collections

**Betsy A. Friesen,** cataloger, Bio-Medical Library, University of Minnesota–Minneapolis; **Joan Marcotte Gregory,** librarian, Technical Services, Spencer S. Eccles Health Sciences Library, University of Utah–Salt Lake City; and **Mary Holt,** monographs librarian, Rudolph Matas Medical Library, Tulane University Health Science Center, New Orleans, LA

Purpose: This paper will report on the development and implementation of descriptive models used to integrate electronic resources in three academic medical libraries using OCLC's Cooperative Online Resource Catalog (CORC). A history of the CORC project and a current update on the status of the CORC database will be included. The use of different descriptive schemes and metadata will be demonstrated. The libraries' use of Medical Subject Headings (MeSH) and NLM classification for subject description of electronic resources will be highlighted and future directions recommended. Special issues regarding the selection and description of resources will be discussed. Cooperation by health sciences libraries to select, describe, and index electronic resources will be stressed.

Setting/Participants/Resources: The three academic health science libraries participated in the founder's phase of CORC to experiment using the provided automated tools for cataloging electronic resources and building subject bibliographies. Models utilized include traditional MARC records in library catalogs, the use of Dublin Core, and the development of CORC subject and teaching pathfinders. Traditional medical subject description using MeSH was employed by all three libraries.

Brief Description: This paper will document three health sciences libraries' experiences in cooperatively describing electronic resources in the OCLC Cooperative Resource Catalog (CORC).

Results/Outcome: The CORC project is at a crossroads and input from the medical library community is essential. In order to describe as many health sciences resources as possible, the medical library community must work cooperatively. There are currently over 350,000 records for electronic resources available in the CORC catalog, now a regular OCLC service. The medical libraries are sharing their individual efforts while providing local access to library-selected resources.

Evaluation: Evaluation of medical library participation in the CORC project will focus on whether or not these efforts produce a service of value to our library users and, if so, whether or not cooperative efforts yield improved access to more resources. Planned methods of evaluation include surveys, focus groups, and comparative statistical analysis of medical resources cataloged for this project.

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## Blundering toward the electronic library: one academic hospital library's experience with eliminating print materials

**Deborah D. Gilbert, AHIP,** and **Carolyn Willard,** medical librarian, Learning Resources, Children's National Medical Center, Washington, DC

Purpose: To report on our experiences after dropping the print copies of more than 100 journals and many major textbooks in January 2000, relying on electronic versions of the titles accessible institution-wide via Ovid, STAT!Ref, and MDConsult.

Setting/Subjects: Children's National Medical Center (CNMC) is a 279-bed private hospital with thirteen inner city and suburban outpatient clinics and a large research institute. CNMC is affiliated with George Washington University Medical Center (GWUMC); its faculty are the Department of Pediatrics of GWUMC. The CNMC library, with its developing electronic collection, serves all hospital staff; medical, nursing and pharmacy students, and residents and provides consumer health information to patients and families.

Brief Description: In the spring of 1999, the librarians were asked to begin developing an e-library with no additional budget. They decided to meet this objective and still maintain the quality of the collection by starting Web-based subscriptions to MEDLINE and CINAHL from Ovid, picking up ninety-three titles with Journals@Ovid, and dropping the hard copy subscriptions in order to fund this project. They also subscribed to sixteen titles using STAT!Ref, again dropping hard copy. In September 200, they started a subscription to MDConsult with plans to further cut hard copy of books and journals in January 2001. In addition, they activated as many e-subscriptions, included as part of paper subscriptions, as possible. The librarians are monitoring the problems and benefits of the e-collection, studying the impact it has on the quality and responsiveness of their services and the effect it has on space and equipment needs.

Results/Outcome: Health sciences librarians in the Washington, DC-metro area are watching this ongoing project with interest. The librarians reported their evaluations on the impact-to-date at a well-attended meeting of the DC group.

Evaluation Method: The librarians surveyed patrons on current electronic access to the literature and their expectations for the projected library e-collection in the late spring of 1999 and will do a follow-up survey in the fall of 2000. Usage statistics of the e-collection and the print collection are ongoing.

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## Truly paperless: creating an interlibrary loan Web application

**Brian G. Lauer,** knowledge management librarian; **Kurt I. Munson,** head, User Services**; Richard McGowan,** library assistant II; and **Steven Hunt,** head, Information Systems; Galter Health Sciences Library, Northwestern University, Chicago, IL

This paper will discuss one library's experience with creating and implementing an interlibrary loan (ILL) Web module. Using Web application software (Allaire ColdFusion) and database management software (Microsoft Access), the module gives patrons and staff the ability to interact with and manipulate data. After registering with the library, users can submit requests and check the status and history of those requests.

Registration requires users to have working email addresses and active library barcodes, verified by the integrated library system. When registering, patrons complete a Web form with contact information and preferences and create a password. Once registered, patrons need only enter their email address and password to login. To make requests, patrons supply citation or book information by filling out a Web form. A quick submit function allows users to enter only the MEDLINE UI. This feature verifies citation information prior to submission, speeds up the process, and eliminates submission errors. The database environment archives requests for the staff to search and update. It is impossible for a request to be lost or misplaced. A search feature allows staff to locate requests that are outstanding, providing reminders for possible problems or special requests. The application automatically sends generic emails to patrons with regard to processing (completion, citation problems, etc.), but staff can still make additional comments in an individual email message. Using the Web module not only eliminates paper forms, reducing clutter as well as the need for filing and storage space, it also allows staff to access the database from any location through the library's Website. By moving the entire ILL system online, the department can now branch out toward other advancements. Using Ariel and Prospero, the library will begin to offer electronic desktop delivery, making the process entirely paperless. Also, with the advent of the ISO ILL protocols library staff can handle all requests to DOCLINE and OCLC directly from the database. Patron billing will also be handled online. Using the database application, complex business rules for billing can be applied with minimal input from the staff, including charging under certain circumstances.

## The magic of Prospero

**Ellen N. Sayed, AHIP,** information services librarian and interlibrary loan coordinator, and **Sarah D. Murray, AHIP,** Internet services and education librarian, Biomedical Library, University of South Alabama–Mobile

Purpose: To evaluate and implement a new and innovative full-text, desktop document delivery method for library patrons at our university biomedical library sites that met our set of criteria.

Setting/subjects: One academic biomedical library site with two affiliated hospital sites.

Methodology: Evaluative research. Evaluation of full-text document delivery methods, implementing the best suited delivery method and user evaluation of new service.

Results: Prospero, developed at the University of Ohio, met all our criteria. During the installation and implementation process of Prospero at the various library sites, different technical challenges were faced and addressed. Assistance from the libraries' systems departments was required to ensure successful solutions. The new service was promoted at the Biomedical Library's InfoFair, in the library's newsletter, and on our Web page. Training of staff required minimal time. Troubleshooting was provided to end users as needed. Avid computer users experienced fewer problems. Prospero has proved to work well with Ariel files. On campus and around the country few problems have been reported. Overseas transmittals are dependent on the technical infrastructure in the specific country and location. Downloading time can be long.

Discussion/Conclusion: When local information resources do not meet patrons' information needs, librarians promptly turn to electronic resource sharing mechanisms for solutions. As turnaround time of full-text electronic document delivery has continuously decreased, the biomedical library sites became interested in extending added value to our patrons by offering full-text desktop document delivery. After unsatisfactory attempts to improve existing delivery methods such as fax and email, we turned our attention to Web-based software. We looked closely at Adobe Acrobat Capture, but Prospero met our criteria better. Prospero has worked well with Ariel files, our computer networks, and staff and patrons alike. We have used Prospero for both delivery of articles from other libraries and delivery between our three sites, expanding access to our collection without the expenditure of duplicating titles. Most importantly, library patrons are delighted with this new, convenient desktop document delivery service.

## FRIP, The Faculty Research Interests Project: collaborative work for improved collaboration

**Catherine Arnott Smith,** predoctoral research fellow, Center for Biomedical Informatics, and **Patricia W. Friedman,** reference librarian, Health Sciences Library System, University of Pittsburgh, Pittsburgh, PA

Purpose: Create a searchable index of MeSH terms describing the research interests of health sciences faculty. This index can be used to match information about funding opportunities and local academic events to appropriate individuals and facilitate collaboration both among local faculty and with faculty at other institutions.

Setting/Participants/Resources: The Faculty Research Interests Project (FRIP) is part of IAIMS activity at Pittsburgh. It centers around a comprehensive research information system being built for the six University of Pittsburgh schools of health sciences. The project advisory committee includes medical librarians and informaticians, research administrators, and programmers. Primary project staff consists of a librarian and a programmer.

Brief Description: FRIP allows faculty researchers to select keywords to describe their work. This is accomplished via (1) automated extraction of MeSH terms from the researcher's MEDLINE citations and (2) presentation of these terms to the specific researcher using a simple, personalized Web interface. Keywords selected and submitted through the Web interface become part of an index that can be searched over the Web by term, name, or academic department. In addition to selecting MeSH terms extracted from citations to publications, faculty may also submit original terms to describe their research interests. These are mapped to MeSH equivalents using proprietary algorithms. If no MeSH term adequately expresses the desired concept, faculty may submit a non-MeSH keyword.

Results/Outcomes: In a pilot study with faculty in two medical school departments, an initial index of 655 unique terms was created, of which more than 90% were MeSH terms. Three months after initial implementation across all medical school departments, more than 50% of faculty had submitted terms to the index. Again, more than 90% of unique submissions were MeSH terms.

Evaluation Method: Analysis of response statistics for these and more measures of interest.

## Consumer Health Information: Special Needs for the Mental Health Population

### Nursing and Allied Health Resources and Consumer and Patient Health Information Sections and Mental Health SIG
WEDNESDAY, MAY 30, 2001, 9: 00 A.M.–10: 30 A.M.

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### A primer for librarians providing services to mentally ill consumers and their families

**Liz Bruno,** director, Educational Services, St. Vincent's Medical Center, Jacksonville, FL

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### Delivering evidence-based patient information: you can't always get what you want, but did you get what you need? Impact of a depression theme month for NHS Direct (UK).

**Karin L. Dearness,** knowledge officer; **André Tomlin,** director, Knowledge Services; Centre for Evidence Based Mental Health, University of Oxford, Oxford, United Kingdom; **Bob Gann,** director, and **Mat Jordan,** content manager, National Health Service (NHS) Direct Online, Winchester, United Kingdom

Purpose: This paper will report on the delivery of evidence-based patient information on depression via the United Kingdom's national telephone and Web-based service, NHS Direct Online.

Setting: NHS Direct Online (www.nhsdirect.nhs.uk) is the U.K. governments' portal for patient information and works in conjunction with a twenty-four-hour telephone information service. The telephone service began in February 1999 and is presently available to thirty million people across the United Kingdom. The online delivery of information was officially opened by the Prime Minister Tony Blair in November 1999 and receives more than 5.7 million hits per month (124,000 unique visitors). As a direct response to questions received, The Centre for Evidence Based Mental Health (www.cebmh.com) was contracted to produce an evidence-based theme month focusing on depression, which was hosted on NHS Direct Online in October 2000.

Description: Questions received at the twenty-six NHS Direct call centres related to depression guided the development of the theme month. Having analyzed the types of calls received at the call centres, it was found that a significant proportion of the calls were from carers, related to specific treatments, from patients looking for social support, or vague in nature and needed to be focused by the telephone staff member. With these main areas in mind, evidence-based information was then composed on: diagnosis, treatment, prevention, and impact of lifestyle by a team of clinical and non-clinical staff. Additional features for the theme month included: a reader's guide to general literature, multimedia resources, online diagnostic questionnaires, and chats.

Results: Feedback collected from October to December 2000 regarding the theme month will be reviewed and analyzed. It is hoped that the types and frequency of calls being received at the call centres will either decrease or become more focused. Usage of theme month components will also be reported.

Evaluation Method: User satisfaction will be monitored via Web-tracking devices, email comments box, and calls to the NHS Direct Help line.

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### INVITED SPEAKER SESSION

## Medicine for International Travel: State of the Art, 2001

## Medicine for international travel: state of the art 2001

**Patricia F. Walker, M.D., DTM&H,** medical director, Center for International Health, Regions Hospital, St. Paul, MN

Millions of Americans travel abroad annually, exposing themselves and others to diseases ranging from mild traveler's diarrhea to life-threatening malaria. With the advent of modern jet travel, diseases rapidly circumnavigate the globe, and physicians unfamiliar with tropical illnesses can be suddenly confronted with baffling clinical problems in critically ill patients. The medical field of clinical tropical medicine and traveler's health has been rapidly advancing in the past decade, strengthened by a rich legacy of several centuries of fascinating work worldwide in medicine in the tropics. Participants in this lecture will learn about the state of the art in training programs for travel medicine and global networks for disease survelliance, as well as standards of care for pretravel advice and post travel consultations for ill patients. Participants will be able to describe which patients should visit a travel medicine clinic before or after traveling, as well as outline what should be expected of such a consultation. Highlights of recommendations for immunizations, travelers diarrhea, malaria, and other disease and disability prevention will be reviewed. Advice for vulnerable travelers will be discussed. "How people really die when traveling" will be outlined. Detailed resources from the Web and the medical literature will be provided.

## 1
## Ask ELIS and SearchDoc: information specialists at your desktop

**Peggy W. Westlake,** coordinator, Online Information Services; **Dawn Williams,** coordinator, Online Evidence Based Services; **Nunzia Giuse, M.D.,** director; and **Frances H. Lynch, AHIP,** associate director; Eskind Biomedical Library, Vanderbilt University Medical Center, Nashville, TN

Incorporating information into practice and optimizing resource utilization are important issues in today's health care climate. The proliferation of varied electronic products and methods of access complicate efficient use of information. To facilitate effective information use at point of need, Vanderbilt's Eskind Biomedical Library expands the librarian's role as instructor, search mentor, and information provider using two asynchronous Web-based reference services—Ask ELIS and SearchDoc—which partner pagers and the Web to reach non-traditional patrons. Ask ELIS and SearchDoc accept unlimited queries twenty-four hours a day and provide Web-linked responses to the researcher's desktop, the student's home office, the nurses' station, or the physician's clinic in a reusable, archival format. Notified of the question via pager and email, the Ask ELIS and SearchDoc librarians email an answer or triage the query to the most knowledgeable source, whether part of the library or not. Answers to queries include linked Websites and targeted search strategies that can be copied into suggested databases or search engines; answers are not limited to information within the library's traditional purview but expand to unaffiliated Websites, university departments, and agencies and organizations. Data collected provides essential information for collection development, training, technical access planning, and Web design to further promote the library's expanded presence.

## 2
## Enhancing instructions in EndNote for a biomedical community

**Patricia A. Carney,** reference librarian, and **James Comes,** associate director, Lamar Soutter Library, University of Massachusetts–Worcester

The advent of the Internet and the resulting information explosion mandates that researchers have the means to manage information at the local level. Bibliographic management tools such as EndNote offer the researcher the means to accomplish this goal. The Lamar Soutter Library Reference Department, through a customer service initiative, has developed a supportive training and instructional program utilizing EndNote. Needs and interests of the students and faculty for a bibliographic management tool were surveyed informally through the library's Liaison Program and the Reference Desk. The survey identified minimal knowledge of bibliographic management tools and inefficient and time-consuming manual practices used to manage citations. This poster describes a program developed to provide a time- and labor-saving means to systematically collect, apply, and manage information for grant applications, journal submissions, and various other research activities.

The goals were:
- to have each member of the Reference Department become part of a resource group with the ability to teach, support, and promote the use of EndNote
- to develop strategies and activities to promote the program
- to support patrons converting existing bibliographies to EndNote libraries
- to create an email discussion list to support users of the program

One member of the department was assigned to learn EndNote and develop a train-the-trainer program. Nursing and departments within the Graduate School of Biomedical Sciences were selected and offered introductory programs. Contact with users of EndNote made it evident that they were not using the program to its full potential. Reeducation became part of the plan as well as providing fixes when users experienced glitches. An advanced program was developed to teach broader information-management skills. Marketing was done through personal contact with department heads, the Liaison Program, communication with active researchers, new faculty, the Office of Research, the Office of Medical Education, and various in-house print media. The program will be evaluated through a survey in the spring of 2001, and the findings will be reported.

## 3
## Utilizing patron trends to target and meet patron needs

**Kathleen Bauer,** reference librarian, Yale University, Cushing/Whitney Medical Library, New Haven, CT

Purpose: Describe the provision of reference services in the context of other trends in the library. Examine and analyze statistical data to target and develop marketing materials for remote users.

Setting: Cushing/Whitney Medical Library service points: the reference desk, circulation desk, historical library, and remote access points.

Methodology: Data gathered during two randomly selected days each month to measure reference and circulation trends. Other data gathered using Web server analysis, data from vendors, and Ovid and electronic journal use.

Results: Reference questions transacted away from the reference desk accounted for a statistically significant portion of all reference activity in the library. When looking at reference transactions occurring at the desk and remotely, 20% of the in-depth reference questions and 13.8% of the technical questions were handled remotely. A larger portion of remote activity consisted of in-depth reference or technical transactions (36.2% of all remote transactions versus 24% of questions at the desk). In overall library statistics, the usage of electronic resources showed rapid growth (55.6% increase in use of Ovid full text journals and 36.8% increase in use of electronic textbooks), while circulation of print materials and activity at the reference desk continued to decline (-8.3% and -11% respectively).

Discussion/Conclusion: These results indicate that a major shift has occurred in the way patrons are using the Cushing/Whitney Medical Library. The patron has become increasingly likely to use the library through its Website and its electronic resources. This trend will continue as more journals and textbooks are delivered electronically to patrons and will accelerate in the near future as the library begins to cancel print

subscriptions. To remain relevant and useful to patrons, reference staff must work to serve patrons at remote and electronic access points. The library must be proactive in examining the needs, behaviors, and expectations of remote users and to increase the library's visibility by developing new marketing techniques to reach the remote user.

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## 4
## Search templates versus filters: comparative experiences in identifying information on

**Mary W. Wood,** librarian, Center for Animal Alternatives, School of Veterinary Medicine, University of California–Davis; and **Stuart J. Nelson, M.D.,** head, Medical Subject Headings Section, National Library of Medicine, Bethesda, MD

Background: Information on realistic alternatives to using animals in teaching and research is dispersed in a wide range of literature and the search for that information can be elusive. Biomedical researchers are required to search for alternatives; however, their results are usually less than satisfactory. In order to assist the research scientist, the center has developed many tools and resources. The most recent development at the center has been the creation of templates, stored search strategies on a variety of topics, which are embedded in a Web document and accessible by all. Another way to assist the user in narrowing a search to only the most useful documents is by the use of search filters. Search filters enable a user to combine the filter with an area of interest to formulate a sophisticated search strategy. NLM has had success with the MEDLINE search filters in Clinical Queries. The potential advantages and disadvantages of the two approaches were explored.

Methodology: Prototypes of filters and templates were developed for a variety of analogous topics. In some cases, the analogous approach for several templates was included in a single filter strategy. Results of retrievals from MEDLINE searching were then compared.

Results/Outcome: Technology is allowing for ever-increasing sophistication while assisting users in locating information. Search templates have proven to be a useful tool in the search for very specific alternatives information. However, maintenance of the templates and providing a sufficient number to address the large number of potential searches that may be needed by researchers presents a logistical problem. The development of search filters would perhaps allow for a wider application and a broader approach to the subject. Difficulties include training the users of the filters about their appropriate use, some loss of specificity in the retrieval, and ensuring that optimal search strategies are being used.

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## 5
## A team odyssey: creating a PubMed Web tutorial for use outside the classroom

**Tara M. Tobin,** reference librarian; **Barbara W. Francis, AHIP,** reference librarian; Health Science Center Libraries, University of Florida–Gainesville; **Susan McCullough,** coordinator, Education, Borland Library, University of Florida–Jacksonville; and **Ramona Miller,** reference librarian, Library, Santa Fe Community College, Gainesville, FL

Setting: The University of Florida Health Science Center Libraries (HSCL) include a large, academic library with the main branch and a Veterinary Medicine Reading Room in Gainesville, FL, and the Borland Library in Jacksonville, FL. The libraries serve the six health sciences center colleges of medicine, dentistry, nursing, pharmacy, health professions, and veterinary medicine.

Project Description: In 1999, a group of interested librarians at the HSCL met to begin the creation of a Web-based tutorial for their distance and on-campus clients to use outside the classroom setting. Based on several criteria, they chose the National Library of Medicine's PubMed database for this project. Using the various expertise and levels of experience of the participants to their best advantage, this team created a user-friendly, Web-based tutorial and launched it in February of 2000. This presentation will address the creation process, what worked and what did not and the importance of teamwork.

Results: The tutorial is a continual work in progress as PubMed itself develops and changes. It has been well received by the Health Science Center Libraries' community as well as national and international institutions. The tutorial is benefiting students and residents on rotations outside of Gainesville who would not otherwise get instruction and also serves as a refresher for those who have had classroom instruction.

Evaluation: Periodic reports of the tutorial's user base are done. A feedback form on the tutorial itself provides valuable information as well as suggestions for improvements and enhancements.

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## 6
## Studies on Canadian eye care information on the Web

**Ruiling Guo,** medical librarian, Medical Library, Henan Institute of Ophthalmology, Zhengzhou, China ; and **Jochen Moehr,** School of Health Information Science, University of Victoria, Victoria, Canada

Purpose: Investigate Canadian eye care organizations on the Web, evaluate and compare their Websites' features and design, and analyze the information the eye care Websites provide.

Methodology: A search of the Web for selecting eye care organizations was conducted, and twenty-nine were determined to be assessment sources. Two instruments for assessment were used. The quantitative assessment instrument was done with a checklist of features containing forty-four items, which were grouped into four sections: general information, site design and technical aspects, eye care information, and external links and interactive tools. The qualitative assessment instrument was the categorical rating scale on which the Websites were rated on ten dimensions.

Results: In this study, it was found that there was a strong correlation ($r = 0.89$, $P < 0.001$) between the number of features investigated at a Website and its score on the categorical rating scale. As compared with the universities and their affiliations, eye companies had more features on site design and technical aspects with attractive graphics and more features on common eye problems and surgical treatment. Eye problems, eye health education and training, and finding eye care professionals had higher scores. On the contrary, the information on eye research had lower scores.

Discussion/Conclusion: The present study indicates that twenty-nine eye care Websites have provided much eye health information for patients, the general public, and health care providers. Through these Websites, very useful resources, such as common ocular problems, diagnosis, treatment and prevention, online seminars, latest news on eye education, finding eye doctors, and so on can be accessible, although each eye site has a distinct goal on its own. The two instruments used were shown helpful in evaluating the eye Websites. It is suggested that some aspects in designing an eye Website might be improved and some contents should be included.

## 7
## Repetitive strain injuries: a survey of medical libraries in Southern California and Arizona

**Terri J. Ottosen, AHIP,** information specialist, Norris Medical Library, University of Southern California–Los Angeles

Purpose: This poster will report on the prevalence and rate of incidence of repetitive strain injuries in medical library workers.

Setting/Subjects: 164 medical libraries in Southern California and Arizona are surveyed to determine the extent of the problem among professional and paraprofessional staff.

Methodology: Questionnaire.

Results: Many studies have been conducted on the problem of repetitive strain injuries (RSIs) and ergonomics among library workers. An even greater number of studies have focused on the problem in other industries. Previous research examined the types of injuries, results of institutional efforts to prevent RSIs, personal narratives of afflicted workers, and ergonomic issues such as job and workstation design. This poster will analyze the results of a survey to establish a baseline measurement of RSIs in medical libraries, including the number of employees affected, their job titles, specific job duties, area of the body affected, medical diagnosis, treatments given, and necessity of modifying the employee's duties as a result.

Discussion/Conclusion: Survey analysis estimates the amount of lost work hours and those activities that cause the greatest potential for injury. The information derived from the survey will be helpful in future research to determine whether these types of injuries are increasing and if the rates found in medical libraries are similar to those in the public library sector.

## 8
## Informatics training to prepare faculty for a new case-based medical school curriculum

**Kelly M. Moore,** coordinator, Health Information Education, Louis Calder Memorial Library; **Carmen Bou Rivera,** coordinator, Library Services, and head, Pomerance Library and Resource Center, Department of Psychiatry and Behavioral Sciences; and **Joaquin Arriaga,** director, Reference and Education Services, Louis Calder Memorial Library; School of Medicine; University of Miami–Miami

Purpose: To identify core competencies and develop educational programs in medical informatics that effectively prepare clinical and research faculty for a new case-based curriculum at the school of medicine.

Settings/Subjects: Department of psychiatry and behavioral sciences faculty at a private academic medical center with a publicly funded teaching hospital within a large urban community.

Methodology: Based on the core competencies in medical informatics identified by Florance at the University of Rochester and a needs assessment of department of psychiatry and behavioral sciences, faculty, library and departmental faculty and administrators identified four competencies needed by faculty in preparation for a case-based curriculum: computer literacy, communications, information management, and computer-aided learning. Library faculty then identified members of the library faculty and staff with the required skills to develop and implement a series of eleven one-and-one-half-hour sequential classes for the four competencies. A total of sixty-eight classes were given during a six-week period to small groups of two to three faculty members at times convenient to the faculty members. The classes emphasized computer applications and skills, utilized the most current technology, and included demonstrations and hands-on exercises.

Results/Discussion: Department of psychiatry and behavioral sciences faculty acquired and began to improve the health informatics competencies needed to effectively teach in the new case-based curriculum to be implemented in the fall 2001. A cadre of six instructors with a high skill level in one or more of the core competencies was required to implement the sixty-eight classes and ensure optimal learning.

Evaluation: Responses and comments to an anonymous questionnaire distributed to faculty who participated in the training indicated a high level of satisfaction with the training in four core competencies in health informatics.

## 9
## Consumer health information for California: collaborating for access

**Elisa Cortez,** reference librarian; **Carlene Bogle,** chair, Public Services; **Marissa Smith,** Del E. Webb Library, Loma Linda University, Loma Linda, CA; and **Heidi Thiessen Sandstrom,** coordinator, Consumer Health Information Services, Pacific Southwest Regional Medical Library, University of California–Los Angeles

Purpose: The purpose of this project was to facilitate access to health information in public libraries. The speakers will discuss the development of the project and the resources used to support collection development and training. They will show participants how they can effect collaboration and use these resources with public libraries in their communities.

Brief Description: The project demonstrates how the knowledge and expertise of health sciences librarians can be utilized to assist public library staff in more effectively answering consumer health information questions in the public library setting. The librarians developed a core list of recommended materials and a series of three basic workshop modules that were used to enhance collections and train staff.

Results/Outcome: After completion of the original project with the city library system, the project was subsequently expanded to include public libraries in a contiguous five-county region.

Evaluation Method: An evaluation form was used to obtain feedback from the workshop participants. Use statistics were collected on the core materials placed in the libraries.

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## 10
## Going from one extreme to the other: a rationale for total cost recovery

**Suzanne Grefsheim,** executive director, National Institutes of Health, NIH Library, Bethesda, MD

Purpose: This poster will report on the rationale used to recover costs for all library services directly from National Institutes of Health (NIH) and centers and on initial reactions to this change in how the library is funded.

Setting/Participants/Resources: The NIH Library supports the information needs of clinical and basic researchers working at the NIH. In recent years, as the library has expanded access to electronic resources and services, demands for access to them has grown significantly.

Brief Description: As part of an organization-wide initiative, a new demand-driven "business model" was developed for implementation in Fiscal Year 2001 that responds to an expanding user base and the higher costs associated with providing a dynamic digital library presence at NIH. The old funding model relied on numbers of researchers with physical access to the library. The source of the funds was a centrally collected "tax" on the appropriations of all institutes and centers (ICs), which was then redistributed to central service units like the library. There was no connection between use of a service and how much an institute paid. Nor was there a provision to expand access to a service beyond the main campus. Under the new business model, charges for selected services for which accurate data is available are based on a three-year history of use by IC staff. However, the costs of acquiring, providing access to, and facilitating use of the library's print and electronic collections could not be allocated in this fashion. All IC staff are potential users, so costs for these services and resources are based on census.

Results/Outcomes: Service agreements assessing each IC with a portion of the library's total operating budget were sent in September 2000. Signed agreements initiated the billing process in October, the beginning of the fiscal year.

Evaluation Method: The library's ability to continue expanding its digital resources and services under this new funding model will be a critical indicator of success.

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## 11
## Using dynamic Web technologies to collaboratively develop an inter-institutional consumer health Website

**Gerald Perry, AHIP,** head, Information Services; and **Kristin Antelman,** head, Systems and Networking; Arizona Health Sciences Library, University of Arizona–Tucson

Purpose: This presentation describes the University of Arizona, Arizona Health Sciences Library's history using Web application server software, focusing on key knowledge gained with each successive project. It will describe the library's most recent project, involving Web-based forms for on- and off-campus update and modification of content to a backend database to support a collaborative, inter-institutional consumer health information Website.

Setting/Participants/Resources: Staff at the Arizona Health Sciences Library have been using Web application server software to deliver enhanced dynamic functionality for a variety of Website projects. With each iteration, library staff has been able to apply a growing body of knowledge about this technology and its uses. The first project involved creating dynamic content for the library's Website, integrating several Microsoft Access backend databases and using Allaire's Cold Fusion Web application server software. For the second project, once again involving Cold Fusion, staff were able to deliver access to more than 1,500 diverse Web-based information resources on behalf of a thirty-plus member statewide consortium of health care institutions. The consortium site featured an increase in database design complexity, with the library moving to a single Microsoft SQL Server database. The result was a significant increase in the site's functionality and navigability.

Brief Description: The library's latest, "third generation" Web application server project found the staff collaboratively developing a Website for a consumer health information initiative involving the library and the regional public library system. Library staff once again used Cold Fusion, a single SQL Server database, a more ambitious model for creating a fully database-driven Website, and introduced a Web form for delivering content into the backend database to allow off-campus partners to participate in developing and maintaining the Website's content.

Results/Outcomes/Evaluations: A usability study will be launched jointly by the Arizona Health Sciences Library and the regional public library to gauge the effectiveness of the jointly developed Website, focusing on ease of navigation and ability to locate information as needed. This third generation initiative has already proved successful, however, in that library staff have developed the skills to permit multi-site, off-network collaboration on Web-based database projects.

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## 12
## Transforming interlibrary loans for the digital library

**Karen A. Butter, AHIP,** deputy director, Library and Center for Knowledge Management, University of California–San Francisco

Purpose: This poster will report on a restructuring of the interlibrary loans process as part of a major focus on resource sharing within the University of California (UC). Two components of the initiative include an aggressive program to license electronic content and the development and implementation of a system that automates the requesting and fulfillment process for faculty and students and improves workflow for library staff. With custom programming, the integration of a commercial system and changes in policies and procedures, Request adds a new level of functionality to the California Digital Library.

Setting/Participants/Resources: This project is under the leadership of the California Digital Library, a collaborative effort of the University of California campuses, five of which are academic health sciences centers.

Brief Description: California's economic downturn in the 1990s plus the rising cost of information brought a renewed focus on resource sharing for the University of California system. A new service, Request, was built upon technology to facilitate the request and transmission of print

materials from one campus to another and development of systems that allow faculty and students to easily access information from the university's shared digital collections. The automatic user-initiated Request for materials located on other campuses was established in January 1999 to support the efficient sharing of print collections across all UC campuses.

Results/Outcome: Request quickly gained widespread acceptance from UC faculty and students. UC library staff, who have been instrumental in its design, acknowledge its value in improving the efficiency of operations.

Evaluation Method: Throughout the multiyear project objective and subjective studies have been conducted. The results of evaluation studies will be presented including suggestions for future development.

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## 13

## How computer literate are first-year medical students? Results of an online assessment

**Susanne Markgren**, reference librarian; **Lynn Kasner Morgan, AHIP,** assistant dean, Information Resources and Systems, and library director; **Alan Krissoff,** reference coordinator; **Lynn Peperone,** reference librarian; and **Pauline Beam,** reference librarian; Levy Library, Mount Sinai School of Medicine, New York, NY

Purpose: This poster will discuss an online computer and informatics assessment given to first-year medical students at the Mount Sinai School of Medicine. It will cover the reason we chose to conduct the assessment over the Web and its development, implementation, and results.

Setting/Participation: Using Web CT, the institutional platform for delivering Web-based education, we developed the Computer, Internet, and Library Skills Assessment. Students could log in from any Internet-connected computer and complete the assessment. All 107 incoming medical students were required to take the assessment within the first three weeks of classes in August 2000.

Description: The reference staff of the Levy Library was asked by the medical school to develop an instruction program that would ensure that all medical students, by the time of graduation, demonstrate expertise in the core competencies and objectives outlined in the Association of American Medical Colleges' *Medical School Objectives Project.* Before embarking on an ambitious instructional program to address basic computer and informatics skills, we decided to develop a Web-based assessment that would be administered to all first-year medical students at the beginning of their four-year program. It was our hypothesis that the majority of students already possessed these skills. If we are correct, our core curriculum time could be used to both refine and teach more advanced skills. By assessing the students online, we were able to quickly compile and evaluate the results and subsequently develop remedial and advanced classes. The results will be used to develop future Web-based courses and assessments in library science and medical informatics.

Results/Outcome: Of 107 students, 94% completed all five sections of the assessment. Out of these, more than 90% scored 75% or above on all sections. Those who did not meet the minimum standard will be required to take a refresher course in the subject they did not pass.

Evaluation Method: The structure of the assessment, questions asked, results, and evaluation will be discussed in the poster.

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## 14

## Copyright permission odyssey: direct requests versus the CCC

**James D. Prince,** librarian; **Beverly Gresehover,** assistant director, Access Services; and **Lolita Heimbach,** reserve circulation supervisor; Health Sciences and Human Services Library, University of Maryland–Baltimore

Purpose: This poster will determine the most efficient means of obtaining copyright permissions for electronic reserves collection readings and detect any emerging trends in the relationships between publishers and the Copyright Clearance Center (CCC).

Setting/Subjects: The Health Sciences and Human Services Library of the University of Maryland–Baltimore, is an academic health sciences library with an extensive electronic reserve collection. Our subjects for this poster are the Copyright Clearance Center and publishers and copyright holders that grant copyright permissions with regard to electronic reserves collections.

Methodology: This is a case study, tracing the steps necessary to acquire copyright permissions for electronic reserves, comparing publisher-direct requests to CCC requests.

Results: This project is in progress. The research is not completed.

Discussion/Conclusion: Early data indicate that reserves units must make use of both services in order to complete copyright permissions, but that publishers grant more generous permissions and more cheaply, while the CCC is faster in turn-around and has more uniform interaction. We anticipate that our results will provide indicators that will enable us to fine-tune our process.

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## 15

## Reconceptualizing the Web: designing and implementing a user-oriented consumer health information (CHI) Website

**Michele Klein-Fedyshin, DM, AHIP,** manager, University of Pittsburgh Medical Center Shadyside, Pittsburgh, PA; **Charles Wessel,** manager; **Jody Wozar,** reference librarian; **Amy Gregg,** reference librarian; and **Paul Worona,** assistant director; Falk Library of the Health Sciences, University of Pittsburgh, Pittsburgh, PA

As an institution starting fresh with consumer health information (CHI), the Health Science Library System of the University of Pittsburgh had an open mind when designing a totally new CHI site. The planning team assembled a unique cross-section of information systems (IS), CHI, IAIMS, and library staff to collaborate. This group deferred the idea of a site consisting totally of lists of links. Our target audience lacked Web experience, representing an older, less affluent population. Our Website needed a structured approach that would guide inquirers, explain why a Website might be worthwhile, and offer selected, quality links. Our resulting effort is structured to promote learning about individual health or disease issues and builds progressively from dictionary definitions, through health topics, drug information, medical tests and procedures,

local resources, evidence-based medicine, and physician referral sections. This structured approach allows consumers to build an understanding of a topic, which in turn can help them to formulate queries regarding the tests, treatment, and prognosis for their condition. Each section has a special feature called Keys to Information, which supplements the Internet resources listed on the site. The keys provide information tips, searching hints, detailed descriptions of Internet resources and list additional sources of information such as books and community resources. Information about regional agencies and organizations in Pittsburgh and surrounding areas, including address and phone numbers, is an important feature of the site. Many patients and families seek information to enable them to make informed health care decisions. The Evidence-Based Medicine and Decision-making section of the site links to compilations of health care guidelines, outcomes, and protocols. Some sites assess the effectiveness of health care interventions based on clinical evidence, while others offer medical protocols based on broad professional consensus. This innovative site seeks to go beyond traditional Web pages in both its format and content. It incorporates learning objectives into information presentation.

## 16
## Bridging the gap in rural health information services: Georgia's rural health information

**Rita B. Smith,** RHIC librarian, Medical Library and Learning Resource Center, Mercer University, Macon, GA

Purpose: This poster will report on the creation and growth of Georgia's Rural Health Information Clearinghouse (RHIC), an information service for health care administrators, planners, and others interested in rural health issues.

Setting/Participants/Resources: The mission of the Mercer University School of Medicine is to educate physicians to meet the health care needs of Georgia's rural and underserved areas. In support of this mission, the Rural Health Information Clearinghouse and an accompanying full-time MLIS position were created in an attempt to provide a central information reference service to assist planners and providers in solving rural health care delivery problems.

Brief Description: RHIC was collaboratively established in 1996 by the State Office of Rural Health and Primary Care, the Georgia Statewide Area Health Education Center Network, and the Mercer University Medical Library. RHIC is based at the Mercer University Medical Library, which now provides sole financial support for the project. Targeted toward Georgia health care planners and providers, RHIC provides free access to rural health resources and specialized reference services. RHIC provides database searches, current literature and news alerts, assistance in the location of funding opportunities and supporting literature, and referral to appropriate agencies and experts. While other initiatives in the state target outreach efforts toward the clinical needs of rural health care practitioners, RHIC directs its services toward hospital administrators, county commissioners, and others interested in health care administration and delivery issues common to rural areas.

Results/Outcome: RHIC's use and recognition have grown markedly since its inception. RHIC continually promotes its services through efforts such as attendance and exhibits at relevant conferences, maintenance of a Website showcasing RHIC resources and services, and a monthly email alert spotlighting rural health funding opportunities, meetings, useful Websites, and more.

## 17
## Responding to the needs of researchers with health sciences data sets resources

**Peggy Tahir,** information services librarian; **Min-Lin Fang**, information services librarian; and **Jacqueline Wilson,** information services librarian; Library and Center for Knowledge Management, University of California–San Francisco

Purpose: This poster will report on a project to assess researchers' needs and uses of health sciences data sets (computer files of research data) to develop a new library service.

Setting/Participants/Resources: The Library and Center for Knowledge Management at the University of California–San Francisco (UCSF) is a large academic health sciences library supporting a campus dedicated only to graduate and professional study in the health sciences. Researchers need access to data sets for their investigations, publications, teaching, and professional practice. As there is currently no coordinated program on campus to assist researchers with finding and accessing data sets, the library is evaluating the need for such a service. A team of professional staff from the reference department, data management services, information technology, and technical services is working on this project.

Brief Description: The project assesses the current availability of data sets and tools in the library's collections, on the UCSF or other UC campuses, or via state, federal, or other agencies. A survey using Web-based conferencing software (Facilitate.com) was developed to determine the needs of researchers on campus for data sets resources. Based on the survey results, we are investigating ways the library can provide services to assist clientele who need access to these resources. The team is developing Web pages that will point to key data sets resources available either via the Web or in our collections. We are also exploring other academic data services as potential models for our service.

Results/Outcome: This project has provided an excellent venue for working on collaborative teams across library departments, as well as between the library and campus departments. The poster will discuss the lessons learned by this collaborative process, including campus political issues that came to light working with departments and faculty outside the library. Preliminary survey results are providing us with an understanding of current practices for obtaining and using data sets and the future needs of researchers on campus.

Evaluation Method: Once we have final survey results, we will determine resources needed in order to move forward with possible implementation of a data sets service for the campus community.

## 18
## Collaboration: the key to building a quality Website

**Diane Fuller,** information specialist; **Alexa Mayo,** assistant director, Information and Instructional Services; and **Patricia Hinegardner,** AHIP, information specialist and Web manager; Health Sciences and Human Services Library, University of Maryland–Baltimore

Introduction: This poster will focus on the interrelationships among individuals, committees, and work groups from within the library and

across campus that participated in the library Web redesign. Challenges and benefits inherent in this team approach will be discussed. Collaborative initiatives from other institutions will also be reviewed.

Brief Description: The Health Sciences and Human Services Library (HS/HSL), University of Maryland, launched its original Website in 1996. In the fall of 1999, the library determined that the Website needed to be completely redesigned. The goal was to provide better organization, improve navigability, and design a more up-to-date look. The HS/HSL Web Redesign Committee directed the project in collaboration with other units on campus. To better understand the impact of collaboration on Website development, selected public, academic, and health sciences libraries were surveyed to determine who influences or participates in Website design.

Results/Outcome: The challenges and successes of the HS/HSL experience and the results of the survey will be discussed.

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## 19

## Don't throw out that (dis)integrated library management system yet, use it to track your library's activities!

**Laurel Graham,** media librarian; **Linda J. Walton,** associate director; **June Carter,** reference librarian; and **Kurt I. Munson,** head of User Services; Galter Health Sciences Library, Northwestern University, Chicago, IL

Without statistics, a library is just four walls in need of funding. Statistics prove libraries are vital components of society. Unfortunately, statistics are elusive creatures; staff forgets to check them, or random sampling tells little about the actual activities of the librarians and staff. But every year, statistics are reviewed and submitted and budgets are influenced. When our library attempted to increase the quality and quantity of our statistics, we tracked statistics in an Access database. This proved to be too time consuming, and as a result statistics were underreported. To counteract the disparity between the statistics and our actual work, we have begun collecting statistics electronically through our circulation module's browse count utility. The library employs the Voyager integrated library management system for circulation, cataloging and acquisitions, and reporting. Implementation included installation of scanners and circulation modules at service stations without them and creation of records corresponding to each transaction by location and time of day. Statistics are collected by scanning a barcode on a plastic covered card in discharge mode. Reports are easily compiled through Impromptu, a report software add-on. Through Voyager, we could even choose to import our statistics to Access or Excel for further analysis and manipulation. The browse count utility has proved incredibly easy to implement and use for statistics collection and analysis. This system allows statistics to be kept at every service point, not done before, in a uniform manner without any manual data entry of hash marks into a database. Now reporting our activities to our funding institution, AAHSL, and ARL is a simpler process and more reflective of our busy library's activities.

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## 20

## How we view ourselves: librarians of the twenty-first century

**Margaret Vugrin, AHIP,** reference librarian, Health Sciences Center Library, and **Hershel Womack,** assistant professor, Photocommunications, School of Mass Communications, Texas Tech University–Lubbock

Our profession frequently examines stereotypes of librarians as they are presented in the non-library media (i.e., television, movies, or magazines). We are very much interested in the visual portrayal of the "librarian." Typically our professional dialog addresses the fact that we are misrepresented. One area that has not been addressed however, is how we ourselves portray the "librarian." This poster presentation will examine the visual portrayal of librarians in the photographic medium. How do we represent ourselves in our journals, in our newsletters, in our marketing literature, and in other media? Six months worth of our literature will be surveyed and reviewed. We will evaluate presentation style using basic photographic analysis. Not only will we examine the image we are presenting, but we will also evaluate and suggest what we can do to give ourselves a twenty-first century look.

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## 21

## Using Web-based databases to design Web-based tutorials: the Ovid Web

**Connie Schardt, AHIP,** education coordinator, Medical Center Library, Duke University, Durham, NC

This poster will explain the process of designing a Web-based tutorial for searching Ovid, from conception of the idea to designing the content and templates, to distribution and sharing of the final product. The Medical Center Library wanted to provide more flexibility in training faculty, residents, and students in the basic searching features of Ovid. This primary clientele had difficulty attending the regularly scheduled Ovid training classes. We thought that developing a Web-based tutorial would give them the flexibility of learning on their own time. The tutorial would have to meet certain design requirements, such as interactivity, ease of use, fast loading screens, succinct content, and provide as much of a "real life" experience as possible. The tutorial was designed using the actual HTML screen from Ovid and incorporating links to the tutorial content to explain and simulate an actual search. Once designed and tested, we made the tutorial available to other medical center and hospital libraries by allowing them to link to our site. We began to receive inquiries from other libraries about the design process and the ability to customize the tutorial to other library needs. It was decided that the best way to share our work was to create a "generic" copy of the tutorial and let individual libraries make modifications to the tutorial for their own use.

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## 22

## Creating an evidence-based medicine online tutorial: collaboration makes a championship team

**Connie Schardt, AHIP,** education coordinator, Medical Center Library, Duke University, Durham, NC; **Jill Mayer, AHIP,** assistant director, NCAHEC Library and Information Services Network; and **Bob Ladd,** curriculum support specialist; Health Sciences Library, University of North Carolina–Chapel Hill

Librarians from two different medical schools, Duke University and University of North Carolina, have collaborated to develop a Web-based tutorial, called Introduction to Evidence-Based Medicine. Both libraries serve health care clinicians who are eager to learn the basic process behind evidence-based medicine (EBM). Both libraries also wanted to provide a flexible opportunity for students and faculty to learn about EBM through an online environment. A statewide needs assessment conducted by the North Carolina Area Health Education Center (AHEC) Program as part of the process of developing a digital library showed that an online EBM tutorial was highly desirable. To meet these needs,

during the summer of 1999 the two librarians worked with a curriculum support specialist to develop the interactive, Web-based tutorial. This poster session will present the challenges involved in creating an online learning experience and present an overview of the EBM tutorial. It will illustrate the teamwork involved in combining content strength with project coordination and design to accomplish the goal. We will specifically address development of the course objectives, planning the development process, beta-testing, developing the evaluation process, and revising the tutorial based on the evaluations. We will have a copy of the tutorial available on a laptop for review by meeting attendees.

## 23
## Modeling user's queries for an online information retrieval system: a librarian's experience and perspectives

**Elizabeth LaRue,** head, Reference, and head, Center for Academic Information Technology, Columbia University, New York

Purpose: To inform designers, of the computer-based query interface, in the "art" of the reference interview by using information drawn from experience and research.

Setting/Subjects: New York Presbyterian Hospital and Columbia University Health Sciences computer scientists, medical informatics faculty, physicians, and computer science students.

Methodology: Conducting a systematic literature review and literature summation, establishing query categories, formulizing MEDLINE searches, then formal classroom instruction on the reference interview and types of queries.

Results: The art of the reference interview needs to be understood by all parties developing the online information retrieval system. The process a librarian uses when presented with a query, when analyzed and interpreted, can significantly aid in the design of computer interfaces that are intended to emulate an interactive query process. The librarian's multi-step process for soliciting information replicated through a well-designed computer interface guides the user along a pathway to rich information resources. The information retrieval system works best with short answer questions.

Discussion/Conclusion: Building a computerized health information retrieval system requires knowledge of the librarians' skills in conducting reference interviews. The user interface must replicate the reference interview to find the correct information desired by the user. Knowing the types of questions asked at a medical library reference desk and what information sources are used to complete the reference interview form the main components in the computerized retrieval system.

## 24
## Improving access to consumer health information in our community: developing tools and training to support public librarians and increasing public awareness of the role of the public library and the academic health sciences library

**Rachael K. Anderson, AHIP** director emerita; **Jeanette C. McCray, AHIP,** deputy director; **Gerald J. Perry, AHIP,** head, Information Services; **Patricia A. Auflick,** access services librarian; **Joan B. Schlimgen,** head, Access Services; Arizona Health Sciences Library, University of Arizona–Tucson; **Joan Biggar,** managing librarian; and **Karen Greaber,** reference librarian; Tucson-Pima Public Library, Tucson, AZ

Consumer Health Information Links for Éveryone (CHILÉ), a consumer health information project funded by the National Library of Medicine (NLM), focuses on creating better access to authoritative health information tailored to our community's needs by developing a partnership between the local public library and the academic health sciences library. Building on the strengths of each library, the CHILÉ project has collaboratively developed tools that support the public librarian as the first point of contact for consumers, including (1) a consumer health information Web page featuring MEDLINE*plus* and health issues important to our community and (2) a Web-accessible database of local organizations with health information resources open to the public. Training for public librarians in the using NLM's MEDLINE*plus* and PubMed, conducting health information reference interviews, and evaluating Web-based consumer health information tools, and other topics of local interest has been developed. The partnership positions the academic health sciences library to back up the reference work of front-line public librarians by providing in-depth referral and consultation services and streamlined document delivery. There is an ongoing commitment to sharing sessions between the public and health sciences librarians and future workshops are envisioned. A key ingredient in the success of this project is the broadly based public relations campaign developed to reach consumers and health care providers. This poster will highlight the tools, training, and public relations materials developed for CHILÉ.

## 25
## MEDLIB-L and the Doctor's Names List

**Mari Stoddard,** head, Education Services, Arizona Health Sciences Library, University of Arizona–Tucson; **Kathy Tacke,** library manager/ telecommunications coordinator, Professional Library, Memorial Hospital of Sweetwater County, Rock Springs, WY; and **Jeff Middleton,** support systems analyst, Arizona Health Sciences Library, University of Arizona–Tucson Z

Some people say that librarians are humorless. The Medical Libraries Discussion List (MEDLIB-L) proves that medical librarians, at least, are not. For in March 1998, more than fifty librarians participated in a month-long discussion of the odd, but appropriate, names of health care providers. It started on March 4. Dalia Kleinmuntz, AHIP, posted "CHAT: What's in a name?" citing Dr. Polymeropoulos, a specialist in Polymorphism. Michelynn McKnight, AHIP, responded with an optometrist, Dr. Seymour Landa. A true librarian, Ellen Rothbaum, AHIP, contributed a MEDLINE search on the subject, possibly prompted Sharon Thomson's submission of the Drs. Medline. Soon, names were flying. Some of the simpler examples were Dr. Kutteroff, surgeon; Dr. Aikenhead, allergist; and Dr. Looney, psychiatrist. Pediatricians produced the charming Dr. Sno White and the youthful Dr. Kidd. In comparison, dentists had Drs. Drewel, Nasti, Harm, and Yowl. The ubiquitous Drs. Pain, Paine, and Payne seemed to appear in every specialty. Less delicate examples included the urologists Dick Tapper, Splatt, and PP, while the OB/GYNs had Drs. Nippel, Hatcher, Hooker, and Finger. By April 1, more than 100 entries had been submitted. Gillian Goldsmith, MEDLIB-L coordinator, called a halt. Kathy Tacke collected the list of submissions, and Mari Stoddard put them on the Web. Since April 1998, the "Doctor's (and other health care practitioners) Names List" has resided at educ.ahsl.arizona.edu/mla/doctor.htm. More than sixty newspaper articles and radio shows, and even one television segment, have featured it. Enhancements include artwork and another 200 names beyond the original 100, but its core remains the work of one mad March in MEDLIB-L.

## 26
## Using a virtual tour to integrate the physical and digital images of a library

**Vickie Bady,** administrative assistant; **Rebecca N. Jerome,** coordinator, Clinical Informatics Consult Service; **Marcia Epelbaum,** assistant director, Library Operations; **Mary Teloh,** area coordinator, Historical Collections; **Frances H. Lynch, AHIP,** associate director; and **Nunzia B. Giuse, M.D.,** director; Eskind Biomedical Library, Vanderbilt University Medical Center, Nashville, TN

Purpose: Present a model for a balanced and complete representation of the library that accommodates all its physical and digital aspects.

Brief Description: Libraries have traditionally utilized the physical library tour as a vehicle for promoting services and resources to both current and prospective users. However, the complexity of imparting a coherent and balanced view of the library, independent of presenter, remains a significant limitation of this model. With the capacity to provide objective representation of services and resources via standardized content, the virtual tour serves as a mechanism to overcome this challenge. In addition, the virtual tour allows seamless integration of the digital library, a resource that has proved more difficult to accommodate via the physical tour model. With this in mind, this academic health sciences library created a team representing all focus areas to develop a virtual tour. Existing library guides, Web pages, and other publications provided an opportunity to reuse and repackage previous efforts to create the tour's content and design. The team created a Web template for the tour pages and used the QuickTime Virtual Reality™ software to link tour text with panoramic views of key library areas. The team has also incorporated emulation of the interactivity feature of the physical tour into the design of its virtual counterpart. The tour content, comprised of concise descriptions, is integrated via hyperlinks to the library's Web pages for further investigation into areas of particular interest. In addition, hyperlinks to our electronic reference and information services provide the opportunity for the user to register any additional questions. Through these linkages, the tour continues to provide an in-depth orientation for users.

Evaluation Method: Increased access and overall awareness of library services will be reflected via access statistics and decrease in requests for physical tours.

## 27
## Internet training and electronic document delivery to rural health care practitioners in Minnesota: summary and impact

**Vicki L. Glasgow,** head, BioMedical Information Service, and **Dawn Littleton, AHIP,** coordinator, Education Technology, Bio-Medical Library, University of Minnesota–Minneapolis

In January 2000, an outreach project funded by the Greater Midwest Region of the NN/LM was undertaken by the University of Minnesota's Bio-Medical Library. The goal of this project was two-fold: (1) to increase rural health care practitioner's skills in using PubMed, MEDLINE*plus,* and Loansome Doc and (2) to determine what impact electronic document delivery might have on Minnesota rural health professionals' use of information. A series of workshops on PubMed, MEDLINE*plus,* and Loansome Doc were presented in selected areas in northeast and west central Minnesota. Sites were chosen in partnership with the Minnesota Center for Rural Health and librarians at medical centers in Duluth and Fergus Falls, MN. Hands-on, "house-call" sessions were also offered to interested health professionals, both in lieu of and in addition to more traditional workshop-format training. Changes in rural health professionals' Internet use patterns were studied by comparing results of a survey conducted in our project with the results of a study published in 1996.

In this poster presentation we will highlight outcomes of our project regarding:
1. Summary of offsite training sessions on PubMed, MEDLINE*plus,* and Loansome Doc to nursing, medical, and allied health staffs.
2. Technical support and hardware available for such rural training sessions.
3. Provision of customized training house calls as a follow up or in lieu of attendance at training sessions.
4. Provision of documents to the health care professionals via email or the Web.

Finally, a summary of the impact of the project on health practitioners' knowledge and usage of Internet resources will be provided.

## 28
## Integrating Websites into the library's Web-based catalog: searchers dream come true or a cataloger's nightmare?

**Cathy C. Montoya,** director, Learning Resources Center, Baylor College of Medicine, Houston, TX; **Karen Mast,** project intern, University of North Texas–Denton; and **Loan Nguyen,** library specialist, Learning Resources Center, Baylor College of Medicine, Houston, TX

Can the dynamic nature of the Web be cataloged like other types of media? Can cataloging Websites and creating instant links be a learning resource for students searching for fast access to credible material or is cataloging Web sites a cataloger's nightmare? The Learning Resource Center (LRC) gateway Websites were previously organized into categories intended to be a resource to medical students involved in Integrated Problem Solving (IPS) course, a problem-based learning class. Students reported that the categories sometimes made it difficult to locate Websites of interest and Web usage statistics supported those statements. In a pilot project to determine the usefulness of including Websites as cataloged resources, the LRC embarked upon the project with 100 Websites. The goal of the project was to provide live links from the LRC's Web-based catalog to Websites that had been cataloged in the LRC 's standard catalog guidelines. Because Websites can lack the credentials of a printed book or reputable software, inclusion of the Websites into the catalog must be approached with attention to the quality of the Website. Each Website needs to be evaluated based on not only the LRC's collection development policy but also a standard that is set for Websites. The Health On The Net Foundation has a Code of Conduct that provides guidance to evaluating health and medical related Websites. It is in the best interest of the LRC to include only those Websites that have the potential of remaining updated and contain authoritative information.

Potential problems areas to be explored with this project include:
1. Website evaluation process
2. collection development policy extended to Websites
3. maintaining Websites in the catalog (given the Web's volatility)
4. degree of cataloging labor needed to sustain up-to-date live links.

## 29
## A digital information project (DIP): the partnership, the process, and the product

**Elizabeth Schneider, AHIP,** director; **Kate Kelly, AHIP,** senior librarian; **Sally Hooper,** MSW, co-coordinator, Cancer Resource Room, Social Work Department; **Deborah Essig, MSW,** co-coordinator, Cancer Resource Room, Social Work Department; **Michael Lynch,** Web master/ library systems technologist; Treadwell Library, Massachusetts General Hospital, Boston, MA

This poster will describe a collaborative digital information project (DIP) that developed out of a partnership between the Massachusetts General Hospital (MGH) Treadwell Library and the MGH Social Work Department. The goals of this project are to streamline information gathering and dissemination in the Cancer Resource Room (CRR) that is managed by the Social Work Department. It also aims to standardize the staff's response to frequently asked questions, thereby ensuring better quality control. To accomplish this, a project was undertaken to digitize key information resources in the CRR.

A. The partnership: This section will briefly enumerate the history and description of the ongoing collaboration between Treadwell Library and the Social Work Department.

B. The process
1. Interpersonal—challenges and rewards of collaborating with other disciplines (e.g., communicating and decision making)
2. Database creation—deciding between using online library catalog versus creating customized database
3. Content identification—deciding about using MGH-produced materials versus commercially produced materials
4. Content organization and indexing system—self-education on existing metadata schemes, selection and implementation of Dublin Core (DC)
5. Dublin Core—issues around using metadata (e.g., identifying DC elements and their relationships, creating metadata worksheets and data entry)
6. Copyright permissions—problems, procedures, and management of pending, granted, and rejected permission requests
7. Subject indexing—deciding between using human or automated systems and the subsequent implications and work-flow issues
8. Scanning—technical and training issues
9. Staffing—funding and training

C. The product
1. An Access database with a Web interface that is accessible via the MGH intranet
2. Keyword searchable by a search engine that is retrieving assigned index terms from selected DC elements
3. May be browsed by categories that mirror the physical organization of the CCR
4. Database links to pdf documents that retain appearance of original documents with full text and graphics

## 30
## Health information for seniors: an electronic consumer health project

**Jeanne Gittings, AHIP,** librarian, Department of Library Services, Trinity Medical Center, Rock Island, IL

Trinity Medical Center received a Consumer Health Information subcontract from the Greater Midwest Region of the National Network of Libraries of Medicine. This grant enabled Trinity to provide Internet access to seniors through the creation of four computer labs. Three were located in retirement communities and the fourth lab, open to the general public, was created in Trinity's Health Sciences Library. Computer classes were conducted regularly at each location. These two-hour sessions gave the seniors an opportunity to use the Internet and taught them how to locate reliable health information. A major emphasis was placed on MEDLINE*plus,* PubMed, and other consumer health resources. Participants evaluated the sessions and a follow-up evaluation was sent to each participant four to six weeks later. In our first six months of this eighteen-month project, over 400 seniors have participated. In addition, Trinity developed a Web page for the project: www.mytrinityqc.com. Links from this page include MEDLINE*plus,* material from the training classes, and other links of interest to this population. The site also provided free access to Web-based email.

## 31
## Why try L.J.I.? Issues in subject heading specificity for facilitating retrieval of Web resources at the Arizona Health Sciences Library

**Fred L. Heidenreich, M.Ed., AHIP,** librarian, Information Services; **Mary L. Holcomb,** head, Technical Services; and **Gerald J. Perry, AHIP,** head, Information Services, University of Arizona, Arizona Health Sciences Library, Tucson, AZ

The Arizona Health Sciences Library Website serves as a gateway to over 1,500 Web-based information resources, including free and licensed items. In addition to the list of more than 1,300 full-text electronic journals, there are databases, collections of electronic journals, digital textbooks and reference materials, and locally compiled Web resource guides. At present, most of these Web-based resources are not found in the online catalog. The library provides access by means of Web application server technology using Allarie Corporation's Cold Fusion software in combination with a sophisticated SQL Server database. It is possible to conduct keyword searches based on words in the title of each resource. Without descriptive annotations and a system of subject headings, however, keyword searching is largely ineffective. Library staff therefore developed a single controlled vocabulary of subject headings based on the broad MeSH terms used in the *List of Journals Indexed in Index Medicus (LJI).* These terms are used to conduct broad subject searches of all available electronic resources. The terms are largely based on major medical specialties rather than disease terms. This approach has generally worked well, resulting in a more comprehensive retrieval for Website users. Users still have a problem finding resources when they use keywords for more precise concepts (conjunctivitis versus ophthalmology). We have achieved a modest level of success in solving this problem through the mapping of terms in see-reference style, but this solution is unsatisfactory, given the workload required to map all possible specific and broad term combinations. Another solution is the use of the library's online catalog as the searching tool of choice where more specificity is desired. This solution works well only for electronic journals with print counterparts in the library, because these records include links to the electronic versions as well as more specific MeSH terms. Unfortunately, users are then required to search two separate systems (Website and online catalog) that offer different categories of information. This poster will highlight these problems and illustrate this library's evolving solutions.

## 32
## Beyond the campus walls: a collaborative project with community-based family medicine preceptors and medical students

**Janet A. Ohles,** head, Information; **Anthony Artale,** information services librarian; and **Diana J. Cunningham,** associate dean and director; Medical Sciences Library, New York Medical College–Valhalla

Purpose: To provide clinically useful information resources for community-based family medicine preceptors and medical students rotating at these practices.

Setting/Participants/Resources: A metropolitan/suburban medical school. Medical students rotating at family medicine community sites and the community physician preceptors. Handouts, Websites, and personal digital assistants addressing curriculum assignments and requests from community preceptors on specific information areas, such as alternative medicine.

Brief Description: This poster demonstrates how a collaborative program evolved from one meeting in September 2000 between family medicine and library faculty, where family medicine requested assistance in locating Websites and population-based medicine for a student assignment. The meeting resulted in several areas of collaboration, including a compilation of family medicine resources for alternative medicine (databases, books, and Websites), which was developed as a paper handout for the community preceptor fall orientation. Family medicine faculty requested that this handout be available as a Website, which was done prior to the orientation. A Palm Pilot project is currently being developed; the details, results, and evaluation for the initial six months of the project will be presented in this poster. The poster will also describe how library faculty serve as an evidence-based medicine resource for the family medicine department.

Results/Outcome: One information request resulted in a collaboration from which both departments have benefited. The collaboration will serve as a basis for a potential grant project for community preceptors that if funded would begin in June. Library and family medicine faculty submitted this proposal to a funding source in June 2000.

Evaluation Method: A formal questionnaire was given to community preceptors to elicit information on how the specialized resources developed by library faculty have aided them in their clinical practice. Students were also given a formal questionnaire to elicit information on how the library-developed resources aided them in completing their assignments.

## 33
## Accessing the most recent information

**helen-ann brown,** [sic], information services librarian, Medical Library; **Kristine Alpi, AHIP,** information services librarian, Samuel J. Wood Library; and **Daniel Cleary,** head, Information and Access Services, Medical Library; Weill Cornell of Cornell University, New York

Not too long ago, MEDLINE and the printed version of *Current Contents* revolutionized timely access to biomedical information. Sometimes a journal table of contents appeared in a printed version of *Current Contents* before it appeared in MEDLINE. In today's world of electronic journals—PreMEDLINE, PubMed, and Current Contents Connect—which resource now offers the most timely information? A pilot study compared seven journals representing a variety of publication frequencies and preindexing formats over time. *JAMA, New England Journal of Medicine, Circulation Research, Annals of Thoracic Surgery, Netherlands Journal of Medicine, Current Opinion in Genetics & Development,* and *Quarterly Reviews of Biophysics* were compared on their Web pages, in PubMed, Ovid Pre-MEDLINE, and Current Contents Connect. The preliminary results showed no clear winner. In many instances, three out of four tools or all the tools had the same issue. Every health sciences library's future should include one of these ways to access timely information for patient care and medical research.

## 34
## Getting the word out: channeling information to users through new technology and traditional resources

**Cindy Gruwell,** assistant librarian/coordinator, Instruction, Bio-Medical Library, University of Minnesota–Minneapolis

The changing flux of librarianship and technology has bought to the forefront the need to refocus and, in fact, rethink the processes we have traditionally used to inform our users of the various services, events, and instruction opportunities available in our library. As we move into the year 2001, we must consider how we can best address not only our users' instruction and services needs, but also the manner in which we present and deliver these resources. To this end, technology is playing a unique and very important role by enabling us to contact and interact with many people who may not have been able to identify our services, let alone take fuller advantage of them. This session will demonstrate the role of technology and its emphasis in "Getting the Word Out". In addition, it will explore the combining of new and old methodologies that not only reach out and touch our general user population, which consists of the students, faculty, and staff of the academic health center, but also other interested parties who may not be directly affiliated with the Bio-Medical Library or the University of Minnesota itself. The poster will explore and display the role of the Internet with emphasis on Web products, email, email discussion lists, electronic university/organization/association calendars, and some of the more traditional resources that include newsletters, postings, flyers, and brochures.

## 35
## Usability studies and surveys: ensuring quality Website redesign, the University of Maryland's experience

**Diane Fuller,** information specialist; **Patricia Hinegardner, AHIP,** information specialist & Web manager; and **Brad Gerhart,** information technology support specialist; Health and Human Services Library, University of Maryland–Baltimore

The Health Sciences and Human Services Library (HS/HSL) of the University of Maryland formed a Web redesign committee to restructure the HS/HSL Website, in the fall of 1999. The original site, developed in 1996, needed better organization, improved navigability, and a more up-to-date look. A usability study was initiated to gain a better understanding of how faculty, staff, and students use the current Website. Volunteers from across the campus participated in the study. The volunteers verbalized what they were thinking as they attempted to locate eight assigned items on the Website. Two library staff members observed and recorded the volunteers' progress. A Web-based survey was used to

gather additional feedback about the site. A prototype site was developed incorporating the suggestions obtained from these evaluation mechanisms. A second usability study was initiated to evaluate the prototype site. Suggested changes were incorporated and the site was released to the public in the spring of 2000. This poster will highlight the results from the usability studies and the survey.

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## 36
## Welcome to RICHS!

**Lisa Boyd,** senior health librarian, National Agricultural Library, Rural Information Center Health Service, Beltsville, MD

RICHS? What is a RICHS? RICHS is the Rural Information Center Health Service. Unfortunately, few people have heard of us. Established by an act of Congress, RICHS serves as the information center for the Office of Rural Health Policy in the Department of Health and Human Services. We are a national program devoted to collecting and disseminating information on a wide range of rural health care issues. As a federal service, we assist anyone and everyone with their rural health information needs from the general public to state officers of rural health to members of Congress. Nestled within the National Agricultural Library in Beltsville, Maryland, the RICHS team accomplishes a variety of outreach activities. The poster is an introduction to RICHS and what the RICHS staff can do for and in collaboration with their health sciences librarian colleagues.

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## 37
## Providing culturally diverse health care information: the hospital library's role

**Lora L. Thompson,** medical librarian, and **Lucy Wrightington, AHIP**, director, Library Services; Easton Hospital, Frank J. D'Agostino Medical Library, Easton, PA

Easton Hospital is a community teaching hospital in an area with growing diverse populations. In response to the Joint Commission on Accreditation of Healthcare Organizations' (JCAHO) standards and Easton Hospital's commitment to cultural diversity, the library staff responded by finding multiple ways to contribute to the effort of providing education and information on cultural diversity in health care. The library staff is involved with the Diversity Task Force, educating employees on issues of cultural diversity, providing cultural information for patient care and education, creating subject guides specific to cultural groups, and working with the local public library to share resources. This poster will focus on the different ways that hospital library staff can get involved with cultural diversity and will provide useful resources that apply to all minority groups, such as the Office of Minority Health. In addition, subject guides will be provided on four main cultural groups: African-Americans, Hispanic-Americans, Asian and Pacific Islander Americans, and Native Americans. Working on this type of project is a great marketing opportunity for the hospital library and has allowed us to make positive contributions toward patient care and JCAHO accreditation.

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## 38
## The Worcester gateway: partners in consumer health information

**Gael Evans,** reference librarian; **Barbara Ingrassia,** assistant director, Technical Services; **Javier Crespo,** assistant director, UMass HealthNet; and **Elaine Russo Martin, AHIP,** director, Library; The Lamar Soutter Library, University of Massachusetts Medical School–Worcester

Purpose: This poster will describe the process of partnering with various types of health information providers in order to make consumer health information more accessible locally. The collaboration involved the creation of a Web-based referral database, workshops to train onsite staff in the use and teaching of MEDLINE*plus,* training sessions for consumers, and marketing of the free services through exhibits, articles, and press releases.

Setting/Participants/Resources: Information linkages were developed among The Lamar Soutter Library, a state hospital learning center, a community wellness library, the Worcester Public Library, an association-based library, a church-based free clinic, and the learning program at the new Worcester Senior Center. A laptop computer, printer, and Internet access were made available to sites that lacked suitable hardware. Some of the aspects to be illustrated by the poster include:

- the electronic, Web-based referral database and project homepage with links to local library resources;
- the educational materials developed to train staff and consumers at each site to retrieve and evaluate Internet-based consumer health information;
- the collaborative displays exhibited at local health fairs, statewide conferences, and community events;
- the challenges and lessons learned in coordinating the efforts of disparate groups; and
- the evaluation methodologies employed to judge success of the project.

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## 39
## Consortial OPAC: a system administrator's tale

**Patricia Prior,** oncall operations manager, and **Martin Mutka, MBA,** director, Library Consortium of Health Institutions in Buffalo, Buffalo, NY

In 1994, two library members of the Library Consortium of Health Institutions in Buffalo (LCHIB) received funding from the National Library of Medicine (NLM) for the development of an online catalog. With the success of this initial project and the evolution of the health care environment in Western New York, LCHIB wrote and submitted a "Phase Two" grant to add the other seven consortia member hospitals onto this existing OPAC. The subsequent Information Systems Grant, funded by NIH/NLM in 1998, was to add the catalogs of those libraries into the database, establish the basis for consortial purchasing and core collections in specialized libraries, and reduce redundancies and consolidate technical services. Just prior to this Phase Two implementation, the health care institutions underwent profound change including mergers and changes in administration and library leadership. The project continued, overcoming many but not all of these issues. This model explores the dynamics of adapting to discrete and sometimes conflicting missions and corporate cultures within a consortia, while finding the fit in the personnel, policies, and missions of competing institutions to shape the framework for successful multisite projects.

## 40
## ThesisWeb: a digital archive of medical student scholarship

**Charles J. Greenberg,** M.Ed., head reference librarian, Cushing/Whitney Medical Library, Yale University, New Haven, CT

ThesisWeb (thesis.med.yale.edu) is a collaborative project to create a searchable database of student thesis citations with abstracts, allowing students and faculty to rapidly locate theses by year, school, or subject, as well as conveniently read or print abstracts from a standard Web browser. Using Reference Web Poster software to put the data on the Web also allows students or faculty to download citations and abstracts into Endnote or Reference Manager. This project ideally complements the traditional emphasis on medical student scholarship at the Yale School of Medicine, which continues to have a student research thesis as a requirement for graduation. New students using ThesisWeb can easily determine what has already been done in their area of interest with greater convenience and saving of time. Collaboration for this project was obtained from the Office of Student Research and a campus scientific journal that was already publishing student research abstracts. Interest in this project is also spreading to the School of Nursing and the School of Epidemiology and Public Health, which have similar thesis requirements for graduate students.

## 41
## Decisions, decisions: the changing face of MEDLINE access

**Linda J. Collins, AHIP,** education librarian; **Lynne D. Morris, AHIP,** information services librarian; **Mary Beth Schell,** AHEC digital library technical development project coordinator; **Jean Blackwell,** information services librarian; **Scott Garrison,** library systems operations manager; and **Barrie Hayes,** UNCLE digital library manager; Health Sciences Library, University of North Carolina–Chapel Hill

The major enhancements that were made to the PubMed system in the fall of 1999 prompted many medical and health sciences librarians to reexamine options for offering MEDLINE access to their patrons. With the advent of PubMed's freely available, high-quality MEDLINE interface, previous decisions to purchase subscriptions for proprietary searching programs were open to question. In addition to cost, other issues needed to be considered. For instance, proprietary systems require some form of user authentication, such as IDs and passwords. Our institution sought to identify methods for determining the best MEDLINE system choice for our extremely diverse user group, which includes many distance-education students as well as off-campus students on clinical rotations. Another important factor we considered was what patrons might miss if they no longer had local MEDLINE access. Our library tackled these issues by forming a task force to evaluate the pros and cons of the different MEDLINE systems and interface options. Our group focused on analyzing the costs and benefits of continuing to offer MEDLINE through our local OVID system or switching to MEDLINE access via PubMed. We also decided to examine a third option, OVID ONLINE, primarily because of its "OpenLinks" feature for linking to the full text of journal articles. This poster will highlight the methods used for our PubMed/OVID comparative evaluation and discuss the results of our investigation.

## 42
## Variations in MeSH mapping

**Kathy J. Davies,** outreach coordinator, NN/LM Greater Midwest Region, Chicago, IL; **Lora V. Gault, MS.Ed.,** assistant information services librarian and assistant professor/education coordinator, Library of the Health Sciences, University of Illinois–Chicago; and **Mary Shultz,** assistant health sciences librarian, Library of the Health Sciences, University of Illinois–Chicago, Urbana, IL

MEDLINE is available through a number of different interfaces. Many of these allow searchers to map to a list of Medical Subject Headings (MeSH), but this mapping function varies depending on the system used. The presenters conducted a preliminary study comparing the mapping results of 112 terms between four major interfaces to MEDLINE: Internet Grateful Med, PubMed, OVID, and OCLC FirstSearch. The results of this pilot study were presented at the 1999 Annual Meeting of the Midwest Chapter, Medical Library Association. The study was then expanded to include approximately 650 terms in a wider range of subject areas and to use the newer versions of PubMed, OCLC, and OVID along with the existing Internet Grateful Med interface. The results of both studies demonstrated that each interface provides a different list of MeSH choices to the searcher. This poster will summarize the results of the larger study, providing comparisons of the mapping variations among the four interfaces. Librarians should be aware of these differences when choosing search options for MEDLINE and when training users.

## 43
## Crossing the health information divide

**Javier Crespo,** assistant director, UMass HealthNet, and **Elaine Russo Martin,** director, Library Services, Lamar Soutter Medical Library, University of Massachusetts Medical School–Worcester

For patients and health care providers alike, access to health information is available in locations traditionally removed from the health care setting. Physicians seeking background information or evidence-based approaches to clinical cases access information systems at computers in locations removed from clinical areas. Patients often seek information on health related topics after their consultations with providers. The purpose of the UMass HealthNet project is to provide access to health information resources in the immediate health care setting. To accomplish this, the project's two objectives bring access closer to these user groups. The hardware and access objective provide computers and connectivity at affiliate health centers. Touch-screen kiosks are deployed at practice waiting rooms for patient-education access. The second objective of the project establishes a consumer health information Website designed for use at clinical practice centers. With the help of the department of Family and Community Health and the Department of Psychiatry, sites are being identified and content is being developed. Sites represent a variety of care settings where access to the Internet was previously limited. The project collaborates with clinical information services departments to assist with installations and connectivity issues. Training is offered to faculty and residents needing assistance or refresher sessions in gathering clinically relevant literature. Health care providers are able to download and print full-text articles that are available through the Internet or licensed through the library. This poster will provide an overview of the project's objectives and milestones. The poster will also demonstrate the touch-screen interface developed for the kiosk units.

## 44
## Enhancing the online catalog with electronic journal information

**Mitchel L. Walters, AHIP,** manager, Cataloging, Serials, and Binding; **Diane Hudson,** systems librarian; **Timothy C. Judkins,** manager, Collections Information and Development; **Helen Mayo,** librarian, Research and Clinical Services; **Herldine Radley,** information resources specialist; and **Dawn Reneau,** cataloging librarian; Medical Center Library, University of Texas Southwestern–Dallas

Purpose: Electronic journals present a number of problems for our traditional understanding both of library ownership and of access through the catalog. Our decision on whether to add electronic journal information to the catalog and how much to add should, however, be guided by the needs of our clients. This study attempts to measure the usefulness to the library's clients of information on electronic journals that was added to the online catalog.

Methodology: A three-tiered schedule of possible electronic journal enhancements was formulated. Implementation of each successive tier will depend on measurable increases in journal searching in the catalog.
- Level one enhancements include hypertext links in the catalog to journals accessible in both paper and online formats.
- Level two would add linked catalog records for titles accessible only in online format.
- Level three would add individualized holdings statements to all the electronic journal records.
A random sample of catalog searches will be analyzed both to determine whether the amount of journal searching justifies the first tier of enhancements and to give a baseline from which to measure any increase in journal searches. If the first tier of enhancements is implemented, searching will again be measured. Other factors being equal, a sizable increase in journal searching should indicate that the enhancements were useful to clients and would justify implementing the next tier.

Results: When we measured the amount of journal searching before any enhancements, it exceeded our expectations enough to justify the implementation of the first level of enhancements. We will measure journal searching again approximately three weeks and then six weeks after the implementation of enhancements to see if journal searching has increased. Further results will be reported at the time of the presentation.

Conclusions: The study should provide evidence on whether or not the library catalog can serve as a useful tool for clients accessing an electronic journal collection. Because the study makes the implementation of each tier of catalog enhancements dependent on measurable increases in usage, it also offers a good example of evidence-based librarianship.

## 45
## Work at home: a cost-effective solution for hospital library projects

**Catherine Boss, AHIP,** coordinator, Library Services, Jersey Shore Medical Center, Meridian Health System, Neptune, NJ

The history of the Booker Health Sciences Library at Jersey Shore Medical Center is similar to that of other hospital libraries. For years there were two libraries, one medical library and one nursing school library with much talk of merging the two libraries into one to make library services more cost effective and to make the nursing school collection more accessible. The decision to close the school of nursing provided the catalyst for making these talks become a reality. A new facility was planned, complete with an integrated library system. Combining the card catalogs of these two collections into an electronic card catalog, however, brought up a new set of problems. The medical library collection was classified in the National Library of Medicine classification scheme, while the nursing collection was classified using the Dewey Decimal classification scheme. Both card catalogs were print catalogs and were not in machine-readable format. With the mission of the nursing collection changing from curriculum-based to one based on the clinical, research, and educational needs of the nursing community at Jersey Shore, extensive reevaluation and subsequent weeding of the nursing collection would be needed. The library staff is small (only 2 full-time people), one professional and one paraprofessional. With construction costs mounting and a tight operating budget, a cost-effective way to evaluate both collections and put them in machine-readable format had to be found. Our solution was a simple one, borrowed from the business community, work at home. The solution worked. Our poster will illustrate how we implemented a work-at-home program for our reclassification project, the myriad of benefits the solution realized, both written and unwritten, and how the tenets of our program might work for other projects.

## 46
## The librarian is in: creating a consumer health training video for public librarians

**Roxanne Cox,** head, Reference; **Erin Bauer,** electronic services librarian; and **Ronnie Mevorach,** reference/education librarian; McGoogan Library of Medicine, University of Nebraska Medical Center–Omaha

Medical librarians of an academic medical center library in a largely rural state reach out to public librarians to share knowledge and impart confidence in providing consumer health information. The Reference Department at the library offers public librarians a day-long workshop on consumer health services. One approach that the department thought might effectively complement this workshop was to create a video demonstrating various situations that public librarians might face. The Reference Department worked together on writing a script and finding actors; then with the aid of the medical center's Biomedical Communications Department, filmed and edited a video, entitled *The Librarian Is in: Facing Modern Consumer Health Issues in the Public Library.* This poster will show the process of putting this production together from scripting, casting, filming, and editing to the finished product. The video includes five reference scenarios reflecting common questions received at public library reference desks: doctor credentials or licensing, alternative medicine, emotional patrons, cancer treatments, and drugs. Each scenario demonstrates an interaction between a librarian and a patron asking for help. Desired benefits from the video include an increase in public librarians' skills and an awareness of how to deal with health questions.

## 47
## Healthy Women 2000: Health Information for All Ages

**La Ventra Ellis-Danquah,** coordinator, Community Health Information Services, and **Gang (Wendy) Wu,** instruction and health information services librarian; Vera P. Shiffman Medical Library, Wayne State University, Detroit, MI

This poster will outline the planning and implementation process for creating a "one-stop" health information program for college campuses. Information consumers still display interest in sharpening their skills on effectively and efficiently identifying and tracking relevant women's health information on the Internet. Wayne State University Medical Library's Community Health Information Services provides reference and information service to metro Detroit communities. With an increasing number of consumers requesting women's health information via the Internet, academic librarians from Shiffman Medical Library sought the opportunity to collaborate with the College of Nursing faculty and students to design and implement a campus-wide program: "Healthy Women 2000: Health Information for All Ages". The collaborative partnership with academic librarians, local nurse practitioners, and the College of Nursing faculty, and students, added an exciting new dimension to traditional library-organized programs. The program was designed to address major concerns in women's health as well as how to access quality health information using the Internet. The program featured:

1. a short talk delivered by the College of Nursing faculty addressing major women's health issues from adolescence through seniors;
2. librarians' demonstration on how to access reliable women's health Websites including MEDLINE*plus*, other quality women's health Websites, and Health Reference Center database;
3. blood pressure checks administered by nursing students;
4. hand-outs included a list of selective Internet resources on women's health, health literature including pamphlets on women's health conditions, women's health organizations, clinics, programs, preventive care, and a list of local free or low-cost health care clinics;
5. a hands-on breast exam model featuring a normal and abnormal breast; and
6. Q & A.

The final discussion summarized health-related issues and care with regards to age, ethnicity, and socioeconomic status. The program rendered such success that the planning committee was asked to re-implement the program at the university's new Fitness and Recreation Center for the 2001 year.

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## 48
## Fingertip files: medical students use personal digital assistants for clinical information

**Brenda L. Seago, AHIP,** director, Computer Based Instruction Lab and **Chris Stephens,** applications developer, School of Medicine, Virginia Commonwealth University–Richmond

What kind of clinical information do third-year medical students need at their fingertips to help them treat patients? Traditionally, students have carried pocket-sized guides and cards. Our medical students are provided with fourteen team teaching rooms, which contain basic textbooks and computers with access to MEDLINE and the Internet, decision support software, and various computer-based instructional materials and general software. In a large teaching hospital, it is not practical for students to return to the team room every time they require information. The student technology fee monies enabled the Computer Based Instruction Lab (CBIL) to purchase fifteen Handspring Visors to be randomly distributed to second, third, and fourth year medical students. They were enrolled in a pilot project to test palm top software for possible clinical applications. All students were notified by email of the pilot project and asked to attend an informational meeting. More than a 100 out of a possible 500 students indicated an initial interest. Additionally, many students already owned and used palm tops and were invited to the informational meeting to explain why they used the palm tops and what software they found particularly helpful. After the meeting, seventy-eight students filled out a Web-based preliminary data form and explained what they thought were the possible benefits and possible obstacles for participating in the project. They agreed to submit usage experience reports and attend at least two out of five user group meetings. Fifteen participants were randomly selected from the interested students. The Visors were distributed after each of the fifteen signed a user agreement. A meeting was held to select appropriate medical software and to demonstrate how to download free software. An informational Web page was developed for the fifteen pilot project participants as well as other user group members. Ongoing technical support for the project participants was provided by CBIL. This electronic poster will outline project specifications and present pilot project user data, including evaluations of specific personal digital assistant clinical applications for medical students.

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## 49
## Innovative uses for OCLC's CORC pathfinder technology

**Dawn Littleton, AHIP,** coordinator, Education Technology, and **Betsy Friesen,** monographs and special formats cataloger, Bio-Medical Library, University of Minnesota–Minneapolis

OCLC introduced its new Cooperative Online Resource Catalog (CORC) as a pilot project in January 1999. The project has two main components: the Resource Catalog and Pathfinder Database. The catalog and pathfinders were made available to OCLC's cataloging members in July 2000. The Resource Catalog includes descriptive records of selected online resources, while the Pathfinder Database was intended to provide online subject bibliographies of Web-based resources. The Bio-Medical Library began creating pathfinders in CORC during the early phases of the project. Initially, we used the pathfinder technology to create only subject bibliographies. We quickly found that this technology could be easily applied to create interactive teaching and learning tools. There are numerous benefits to using CORC pathfinder technology; these include an interface with the Resource Catalog, URL checking, wide accessibility, and cooperative ventures with technical services staff.

Our presentation will show:
1. The ease with which pathfinders can be created with CORC technology.
2. Interactive examples of inventive pathfinder usage.
3. How pathfinders can be tailored to a variety of audiences.
4. The benefits of using CORC pathfinders for public services staff and clientele.

CORC pathfinder technology offers staff of OCLC cataloging libraries many opportunities to creatively use this technology to serve their clientele.

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## 50
## Going paperless: the interlibrary loan department, Microsoft Project, and ILLiad

**Susan Lieberthal,** document delivery librarian, Countway Library of Medicine, Harvard Medical School, Boston, MA

ILLiad Management Software has been chosen by the interlibrary loan/document delivery department (ILL) at the Countway Library of Medicine, Harvard University, to automate all processes. ILLiad offers many features suitable to a large medical library. It can handle DOCLINE and OCLC requests, has a document delivery component, and has a well-developed set of reports, including copyright reporting. In order to manage the transition of this complex department to an automated, paperless operation, the document delivery librarian is using the Gantt chart tool in Microsoft Project. Plotting each process in the chart assists in clarifying policies and processes for the library as well as for the ILLiad installers and is defining the special customization needed for Countway. Microsoft Project has many features similar to other Microsoft products, making it relatively easy to use. In Microsoft Project, it is possible to enter scope, time, and resources for each task, and notes can be attached. The resources section can be used to assign people to various responsibilities. Tasks can be linked and timelines established. As the tasks of the project are itemized, some key features have emerged: On the lending side, ILLiad needs to provide customized billing features allowing the ILL staff, when updating requests, to send billing either to Electronic Fund Transfer System (EFTS) or to the new central accounts receivable system at Harvard University. On the borrowing side, Microsoft Project is helping the department to define all eligible users and how they will be authenticated through the new medical school intranet. This includes research assistants placing requests for researchers through a proxy account. Microsoft Project assists the ILL department during staff meetings. Because the program is projected from a laptop on to a screen, everyone can participate in finding gaps in the processes and in making suggestions. As automating ILL cannot be successful without heavy involvement from the systems department, these meetings include the systems staff. Microsoft Project is providing both a big picture view and the means for collecting and sorting through details. This will facilitate the successful implementation of ILLiad in the ILL department.

## 51
## As real as it gets: the use of ScreenCam, a personal computer screen recording application, to create a Web-based tutorial

**Haldor Lougee-Heimer,** information services librarian, Medical Sciences Library, and **Afsar Mohiuddin,** systems administrator, New York Medical College–Valhalla

Purpose: This poster will describe the use of ScreenCam, a personal computer (PC) screen recording application in the creation of a Web-based tutorial.

Setting/Participants/Resources: A suburban/metropolitan medical school library committed to real-time instruction. Faculty informally communicated to librarians the need to have instruction available at their desktops. Third and fourth year students are off-campus, and this tutorial provides a means to continue providing them with instruction. There is thus an ongoing effort to evaluate user needs, draw together limited resources, and utilize available technology to produce high-quality instruction.

Brief Description: Web-based tutorials offer the advantage of being unrestricted by time, distance, or the need for an instructor, as well as providing both a reference source and a refresher course that is always available. While there has been a proliferation of such tutorials, they remain, for the most part, text-based, and supplemented and supported by still imagery. Purchase of SceenCam software, an inexpensive PC screen recording application, provided a unique opportunity to construct a tutorial that pilots live imagery with audio or captions: recorded real-time examples that raise the level of Web instruction. A Basic Internet Tutorial was selected for the pilot, as it is entirely situated on the computer screen. Recording what takes place in carefully selected segments (movies) and then embedding these in the tutorial for replay, provides a nearly perfect example and replication of real-time Internet activity without the presence of an instructor. Additionally, this successfully addresses the faculty's preference of one-on-one "consults" to classroom instruction, along with addressing students rotating through sites off campus.

Results/Outcome: A Web-based tutorial about the Internet that provides a significant portion of its instruction with recordings (movies) of real-time activity.

Evaluation Method: User satisfaction is being evaluated by means of a gate counter, email response, a one-time test group, and an online evaluation form. Faculty and students are surveyed to determine which information resource will be the next course developed using this Web-based teaching approach.

## 52
## Introducing access to electronic health information for the public: Webster Parish libraries meet NLM

**Dennis Pernotto, Ph.D.,** head, IAIMS; **James Pat Craig**, director; **Rosa Chilton,** head, User Education and Outreach Services; **Dixie Alford Jones, AHIP,** head, Reference Section; **Michael Watson, M.D.,** assistant director, Systems; Medical Library, Lousiana State University Health Sciences Center–Shreveport; and **Eddie Hammontree,** director, Webster Parish Library System, Minden, LA

Purpose: To extend electronic health information services to rural Webster Parish by sharing information resources of NLM with health care providers and consumers in heavily concentrated minority populations through the use of advanced technological applications.

Settings/Participants/Resources: A collaborative effort between the Louisiana State University Health Sciences Center–Shreveport Medical Library and the Webster Parish Library focuses on the development of a Website, which is easily accessible to consumers and to health care personnel.

Brief Description: This project specifically demonstrates assistance to the marginally literate in rural parishes of the lower Mississippi delta project of the NN/LM program of NLM and to those in underserved areas of Northwestern Louisiana. Major features include: (1) training public librarians to use NLM databases, (2) developing a working model in one rural parish that can readily be transferable to all of the rural parishes of Northwestern Louisiana, (3) testing the practicability of the proposed model, (4) evaluating the effectiveness and impact of the model, and (5) exporting the results of the study on a local, regional, statewide, and national basis.

Results/Outcome: The project demonstrates how any health sciences center (HSC) library can more effectively extend access to consumers and health care personnel. It also furthers the integrated approach to information management advocated by the Matheson-Cooper Report. Finally, it provides a model for the broader distribution of future electronic health information.

Evaluation Method: Evaluation was gathered through forms completed by the public librarians who received training, through forms completed by consumers at the public libraries, and by recording the numbers of hits on the Website.

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## 53
## The Utah Consumer Health Information Network (uchin.med.utah.edu)

**Elizabeth Workman,** University of Hawaii, 1993, affiliate librarian, Eccles Health Sciences Library, University of Utah–Salt Lake City

In May 2000, the Eccles Health Sciences Library, in collaboration with the Health Round Table of the Utah Library Association, launched the Utah Consumer Health Information Network (UCHIN). UCHIN is a consumer health information resource that simultaneously serves and combines the services of libraries and health care providers throughout Utah. The project's primary goal is to reach consumers at the point of need, whether in a hospital, at home, or at the library. In order to fulfil this goal, a librarian and round table member created a Website that provides utilities for consumers, providers, and librarians. For consumers, there is an extensive list of evaluated Websites, plus contact information and links for community libraries throughout the state. For health care providers, the UCHIN Website provides access to evaluated patient education handouts and professional resources (state medical association, state health department, PubMed, and other NLM services, etc.). Librarians can find collection management materials (core lists and other bibliographies, deselection guidelines, etc.) instructional aids, and access to Internet evaluation criteria. The expected results of the UCHIN project include improved information services for consumers, higher visibility for library services, increased access to useful materials for physicians, and assistance for librarians in collection development, patron instruction, and professional development in the field of consumer health reference. The primary anticipated outcome is better communications and a sense of teamwork among those who serve health consumers in Utah.

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## 54
## Emerging handheld technologies in the medical field

**Annamae Trypus,** graduate assistant, Library, All Children's Hospital, St. Petersburg, FL

The use of handheld computers or personal digital assistants (PDAs) by doctors and other medical staff has increased dramatically in recent years. PDAs help free doctors from stationary desktop computers allowing them to access information from anywhere. Doctors can retrieve and update medical records as they move from patient to patient, lowering the risk of medical errors caused by incomplete records, illegible handwriting, or the doctor's inability to recall patient details long after they have spoken with the patient. Doctors can use the PDA to answer several questions on a decision tree to determine a patient's risk level at the patient's bedside. Doctors may also use their PDAs to access online databases and full-text books such *as Physician's Desk Reference.* Because the librarian is a key portal to new ways of finding and utilizing information, the medical staff will naturally turn to the medical librarian for assistance with handheld information. It is vital that the librarian be aware of this technology, how to use it, and how best to address the needs of doctors regarding PDAs.

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## 55
## From the ground up: development of a Web-based online tour and orientation

**Jeanne Larsen,** assistant director, Information Services, and **Taeyeol Park,** curriculum support specialist, Dahlgren Memorial Library, Georgetown University Medical Center, Washington, DC

Purpose: This poster will chronicle the development of the Dahlgren Library's online tour and orientation. Our primary goal in developing the online tour and orientation was to provide an easily accessible resource that could be used with orientation sessions and is available to patrons around-the-clock. Future features of the online tour and orientation include value-added components such as library skills evaluations that will be linked to the tour site.

Setting/Participants/Resources: Georgetown University's Dahlgren Memorial Library is a multi-level collection housing over 186,000 books, 1,000 journals, 400 electronic resources, and 3,500 multimedia and software resources. The library serves more than 5,000 students, physicians, and allied health personnel. The beginning of each academic year sees an influx of 500 new students, few of whom are familiar with the layout of the library or location of various resources within it.

Brief Description: In February 2000, under considerable time, staff, and resource constraints, the Education Team at Dahlgren Memorial Library initiated discussion about developing an online tour and orientation to be utilized during Fiscal Year 2001 orientation sessions. Creating an effective online tour and orientation meant drawing on the talents, resources, and unique perspectives of a diverse group of library personnel. This poster will describe the process from inception to completion, including how the resource was utilized during orientation sessions, and possible future applications for this resource.

Results/Outcome: The finished product, which is located at www.dml.georgetown.edu/library/tour-orient.html, was a carefully planned and executed effort, which produced an online resource that saves time and paper costs. Our online tour and orientation can serve as a template for other academic libraries seeking to stem the rising costs of paper handouts. It also serves as a ready reference source for library patrons any time of day or night, often alleviating the need for personal assistance.

Evaluation Method: We solicit feedback from patrons via a "comments" link and will continue to monitor our patrons' responses.

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## 56
## Going solo on OT SEARCH: a bibliographic database in occupational therapy

**Maria Tsitseras Sylvain,** reference librarian, American Occupational Therapy Foundation, Bethesda, MD

Technology constantly challenges librarians to provide current training for online databases for its users. The rapidly increasing pace of technological advancements can leave librarians communicating via email or telephone with frustrated patrons at a remote site. Online

tutorials are effective training materials that are ideal for delivering informative, unsupervised training for both individuals and large audiences at any remote location. The recent upgrade to OT SEARCH has spurred an urgent need for online user training at the Wilma L. West Library. As a result, the library has created online tutorials on how to search OT SEARCH in an effort to increase communication with its users and to empower them to search and retrieve information. The online tutorials are supplemented by a series of printed tutorials that are published in *OT Practice,* a popular periodical among occupational therapists and occupational therapy students. OT SEARCH is a bibliographic database covering the literature of occupational therapy and related subject areas, such as rehabilitation, education, psychiatry or psychology, and health care delivery or administration.

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## 57
## Introducing a Web-Based consumer health information database?

**Caryn Scoville,** public services librarian, and **Ann Thering,** graduate library assistant, J. Otto Lottes Health Sciences Library, University of Missouri–Columbia

Purpose: This report describes the collaborative development of a new Website to serve as a portal for consumers seeking health information, with a special focus on resources available in the state of Missouri. In conjunction with the Patient Education Department of University of Missouri Health Care, the Information Services Department of the J. Otto Lottes Health Sciences Library has developed a patient-education Website to provide patient education and consumer health information for the general public, as well patients and physicians at University of Missouri (MU) Health Care.

Brief Description: The Website will be dynamically linked to an Oracle database. Content will include all patient-education materials produced at University of Missouri Health Care, links and descriptions of online support groups and Missouri support groups that meet in person; MICROMEDEX CareNotes; over 700 health questions and answers generated through an online question-and-answer service; and other Missouri health resources. All records will be searchable by broad and more specific subject categories, title, and keyword, and are being indexed using the National Library of Medicine's MEDLINE*plus*'s subject headings. Additional keywords are also being assigned to enhance searchability.

Results/Evaluation: User-testing of the site will ensure a friendly interface and help eliminate problems. Staff at MU's Health Information Center, located in a local shopping mall and staffed by registered nurses, will be trained in the use of the site and its content to enhance their ability to provide health information to the public. In addition, training in the use of the site will be offered to public librarians in Missouri and to the public in Columbia, Missouri.

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## 58
## Train-the-trainer (TNT): gateways to quality health information

**Diana Robertson,** library services co-ordinator; **Margaret (Peg) Allen, AHIP,** library consultant; **Suzanne Matthew, Ph.D.,** executive director; and **Colleen Crowley,** outreach librarian; Northern Wisconsin Area Health Education Center–Wausau

The train-the-trainer concept is being used today in everything from fire safety to adult education instruction. The extrapolation into the library information field was only natural. One of the main goals of the third and fourth year of a four-year National Library of Medicine grant awarded to Northern Wisconsin Area Health Education Center (NAHEC) is to facilitate consumer access to health-related information resources. Train-the-trainer fit with this goal by using already established relationships to increase consumer awareness. The health care providers and public health departments in the geographic areas were the original partners. They were invited to bring their community public and school librarians. The train-the-trainer workshops consisted of basic training tips, PowerPoint presentations available to them on disk and downloadable from the Web, a workbook, and a preparation checklist. Computers were funded and distributed to partners to be placed in public areas and were set up with the consumer health information Web page of NAHEC as the home page of their browsers. There were three types of workshops and one demonstration presentation. The demonstration presentation was meant for an audience who could then attend the workshops and encourage others to participate. The intended audiences included interested parties in hospital auxiliaries, senior center clubs, and community clubs, such as Rotary. The workshop participants came out of these demonstration presentations. The three types of workshops include an introduction to the Windows operating system "Introduction to Windows and the Internet," an introduction to email "Conversations On-line: E-mail basics," and searching the Internet "Searching the Internet for Quality Health Information." The availability of all these tools will enable communities to better train each other on how to find quality health information on the Internet. Posters will include training materials and forms used for evaluation.

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## 59
## An odyssey through gray literature access by the establishment of a Web searchable state morbidity database

**Kathryn E. Kerdolff, AHIP,** reference librarian, Health Sciences Center Library, Louisiana State University–New Orleans

The purpose of this electronic poster is to demonstrate the establishment of the Web-searchable State Morbidity Database (melvil.lsuhsc.edu/ris/risweb.isa), a database of cataloged, linked, and indexed state health publications. State publications are considered "gray literature," because they are not indexed by any of the published indexing sources and have limited distribution. They do however provide current, detailed, local health information. The database provides Internet access to the publications by linking to the full-text copy or locating a copy from a library catalog. During the electronic poster demonstration, publications will be identified and located using the Internet site created for this purpose. Showing the actual cataloging and indexing procedures for an example publication will also demonstrate bibliographic management of these publications in a Web-searchable database. This project started as a necessity for our librarians to quickly locate local disease incidence and prevalence reports. We cataloged and indexed our state publication, the *Louisiana Morbidity Report (LMR)* and made it accessible in a searchable bibliographic database via the Web. While some states have indexed these publications, we recognized that other states' equivalent publications had similar access problems. Locating the specific publications is less straightforward when the reports are not cataloged or indexed. The State Morbidity Database, modeled from the *LMR,* was started to provide easier access to these morbidity publications from other states. Currently, we have identified and have links to morbidity publications for each of the fifty states. This demonstration will be of interest to anyone who manages gray literature, small ready reference collections of items that are high use but difficult to locate because of lack of indexing. Our newspaper clipping file and faculty publications files were created and are managed following this same format.

**60**

**Creating search strategies from clinical scenarios**

**Shawn Manning,** coordinator, Educational Services, Medical Science Library, New York Medical College–Valhalla

Purpose: This poster will report on use of clinical scenarios and the construction of proper search terms and strategies.

Setting/Participants/Resources: The classes, which were held at the Medical Science Library, are open to the college's medical students, as well as family medical practitioners with voluntary or full-time faculty status. The resources used, as appropriate to the clinical questions, are: PubMed, WebSpirs, StatRef, MDConsult, and the Cochrane Library.

Brief Description: After conducting online and hand searches, as well as receiving suggestions from family medicine faculty, several clinical scenarios were devised. This poster will report on the construction of the clinical scenarios, along with how class participants were taught to break the clinical scenario into search terms.

Results/Outcome: Participants are able to break down a scenario into search terms and determine the most efficient resource to use and the proper treatment to be used.

Evaluation Method: Likert Scale evaluation.

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**61**

**A 2001 space odyssey: where to house the consumer health information in an academic library?**

**Hannah M. Fisher, AHIP,** associate librarian; **Fred L. Heidenreich, M.Ed., AHIP,** librarian; **Nga Nguyen,** library specialist, senior; **Gerald J. Perry, AHIP,** associate librarian; **Mary L. Riordan, AHIP,** associate librarian; **Jose Solorzano,** support systems analyst; **Catherine L. Wolfson, AHIP,** associate librarian; and **David Howse,** associate librarian; Arizona Health Sciences Library, University of Arizona–Tucson

Staff at the Arizona Health Sciences Library (AHSL) have participated in a number of consumer health-oriented initiatives, including an effort to provide health professionals at the university medical center (UMC) with support for delivering patient-appropriate, knowledge-based resources. To provide the best possible information service, a committee from the library's Information Services Department developed a proposal to allocate space for a consumer health collection to serve UMC patients and families and members of the general public. This process included an informal email discussion list–based survey of academic medical libraries, consultations with the UMC Patient and Family Education Council, and analysis of local experience. After study and discussion, the committee made recommendations for the location and space requirements for a separate consumer health collection. The committee recommended that the library catalog all consumer health materials in the standard NLM classification but house them apart from the reference collection. Call numbers, special labeling, tape, and signage were suggested to identify the collection materials and location. Because the university medical center serves a diverse clientele, the library wrote information brochures in different languages to assist consumers in their quest for health information. "Prescription for Information Therapy" forms were created for health professionals to promote the referral of patients and their families to Information Services/Reference staff. The forms specify diagnosed conditions and the health information needs of the referred individuals and assist the reference librarians to identify materials that best meet those needs.

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**62**

**Information services outreach to health professionals serving Hispanics in the Northwest Ohio Region**

**Marlene Porter,** head, Information Services, R.H. Mulford Library, Medical College of Ohio–Toledo

According to government reports, Hispanics are an underserved population when it comes to medical care. With statistics showing that Northwest Ohio has a fairly large Hispanic community, an information outreach subcontract was granted to the Mulford Library of the Medical College of Ohio-Toledo through the National Network of Libraries of Medicine (NNLM/Greater Midwest Region–NO1-LM-6-2523). This project created a relationship between the Mulford Library and health care professionals who care for Hispanics in five northwest Ohioclinics (3 in Toledo, 1 in Fremont, and 1 in Willard). Internet connections for accessing MEDLINE, Loansome Doc, and other library and Internet resources were established. Resource training was conducted by the regional library to familiarize the health care professionals in these systems with emphasis placed on utilizing electronic resources in serving Hispanic patients. This poster documents the project from inception to evaluation.

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**63**

**2001-the final chapter: a collaborative project of the Consumer Health Committee of the Georgia Health Sciences Library Association**

**Jan H. LaBeause, AHIP,** director, Medical Library and Learning Resource Center, Medical Library, Mercer University School of Medicine, Macon, GA; **Carolyn M. Brown, AHIP,** reference librarian, Health Sciences Center Library, Emory University School of Medicine, Atlanta, GA; **Rebecca R. Fehrenbach,** head, Information Center, Greenblatt Library, Medical College of Georgia–Augusta; **Mary Fielder, AHIP,** outreach librarian, Three Rivers Area Health Education Center, Columbus, GA; **Pat Herndon,** librarian, Shepherd Center, Noble Learning Resource Center, Atlanta, GA; **Lee R. McCarley, AHIP,** outreach librarian, Southwest Georgia Area Health Education Center, Albany, GA; **Roxanne M. Nelson, RN,** head, Public Services, Medical Library, Mercer University School of Medicine, Macon, GA; **Beth C. Poisson,** branch librarian, Multi Media Center, Morehouse School of Medicine, Atlanta, GA; **Annette J. Sheppard,** health sciences librarian, Professional Library, St. Joseph's-Candler Health System, Savannah, GA; **Lisa P. Smith,** outreach librarian, Magnolia Coastlands Area Health Education Center, Statesboro, GA; **Rita B. Smith,** RHIC librarian, Mercer University School of Medicine, Macon, GA; **Kathryn J. Torrente, AHIP,** head, Reference and Instructional Services, Health Sciences Center Library, Emory University School of Medicine, Atlanta, GA; **Linda Venis,** library services manager, Kennestone Health Science Library, WellStar Health System, Marietta, GA; **Mia Sohn White, AHIP,** reference librarian, Health Sciences Center Library, Emory University School of Medicine, Atlanta, GA; and **Cathy Woolbright,** director, Medical Library, Columbus Regional Healthcare System, Columbus, GA

Members of the Consumer Health Committee of the Georgia Health Sciences Library Association (GHSLA) authored the final chapter in *Preventive Medicine and Patient Education* to be published by W. B. Saunders in February 2001. Co-edited by Alison Lauber, M.D., and James B. Labus, PA-C, the handbook was written "to provide a comprehensive reference book to clinicians of all levels …designed to educate the clinician in order to facilitate patient education." The librarians' chapter (entitled "Resources") consisted of annotated resources (i.e., government agencies, institutes and health centers, national professional associations, nonprofit organizations, support groups, newsgroups, email discussion groups, Websites) on each of the topics covered in other chapters of the book: "General Preventive Strategies," "Alternative Medicine," "Cultural Influence," "Domestic Violence," "Environmental Health," "Epidemiology," "Exercise," "Genetics," "Geriatrics," "Home Safety," "Immunizations," "Literacy & Health," "Nutrition," "Trauma," "Travel Medicine," "Cardiovascular," "Bone & Joint Disorders," "Gastrointestinal Disease," "Infectious Disease," "Mental Health," "Metabolic Conditions," "Neoplastic Conditions," "Neurologic Disease," "Substance Abuse," "Men's Health," "and Women's Health." Complete contact information was included for organizations, associations and support groups, government agencies and offices, and other Websites (i.e., sponsored by educational institutions or commercial enterprises). An introduction included tips for evaluating resources and information, locating and joining electronic discussion groups, and using information brokers or personal search services in lieu of searching personally. Fifteen GHSLA members served on the committee: eight academic librarians from all four of Georgia's medical schools (Emory University School of Medicine, Medical College of Georgia, Mercer University School of Medicine, Morehouse School of Medicine), four hospital librarians and three Area Health Education Center (AHEC) outreach librarians. They were assisted by colleagues at the National Network of Libraries of Medicine, Southeastern/Atlantic Region, Baltimore, MD; the Centers for Disease Control and Prevention, Atlanta, GA; and the Nicholas Davies Community Health Library, Atlanta, GA. Committee members are listed as chapter authors and GHSLA received $10 per published page. The project provided a unique opportunity for the librarians to use their expertise in locating quality information resources and be recognized as part of the health care team.

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## 64
## Building on the foundation of "Mastering Medical Information": reinforcing information retrieval skills at the University of Rochester

**Julia Sollenberger, AHIP,** director and assistant professor, Medical Informatics, and **Kathryn W. Nesbit, AHIP,** coordinator, Education Services, Edward G. Miner Library, University of Rochester Medical Center, Rochester, NY

For true mastery of information retrieval skills, students must receive frequent reinforcement of the basics introduced to first-year medical students at the University of Rochester (UR) during the course "Mastering Medical Information (MMI): Foundations for a Lifetime of Learning." The problem-based learning (PBL) environment of the school's new Double Helix Curriculum requires that students begin their undergraduate medical education with a strong foundation in searching for and evaluating information and then applying that information to a clinical case. Basic MEDLINE searching skills are covered in hands-on computer labs in the MMI course during the first four weeks of the curriculum, with a required homework assignment and a graded exam. Basic skills are not sufficient, however, in this information-intensive world; librarians and faculty at the UR are working together to provide experiences that support continued skill-building and enhanced knowledge of resources in evidence-based medicine. Later in their first year, students receive two more "interventions." First, they are given advanced searching instruction as part of an evidence-based medicine lecture in their eighteen-month Ambulatory Clerkship Experience (ACE), followed by an assignment. Students develop a clinical question from an actual patient encounter, search that question on MEDLINE, find a research article on the topic, and then evaluate the article using evidence-based medicine criteria. Students receive individual feedback on their clinical questions, and then, after performing a MEDLINE search, meet with a librarian for forty-five minutes to discuss search strategy and to reinforce techniques for searching for evidence-based medicine resources used in clinical decision-making. In the spring of Year 1, all students receive a standardized MEDLINE search question as an assignment in their Host/Defense course. Librarians evaluate each search by comparing it to a "gold standard" search strategy, and students receive written feedback. By having repeated interactions with library staff, the students are able to enhance their information retrieval skills. An individual student's progress can be tracked from one assignment to the next and assistance offered where appropriate. Students' information retrieval skills will be formally assessed as part of the comprehensive exams administered at the end of their second year. A single-sheet PowerPoint poster will be prepared utilizing rich color and graphics to illustrate content. An illustration of a DNA double helix will form the basis of the design.

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## 65
## Imaging: what we learned when scanning text for data entry in an osteopathic literature index database

**Lynn F. Johnson, CAS,** special projects librarian; **Ann Brooks, MBA, AHIP,** associate director, Public Services; **B. Carter,** special projects librarian; **Craig S. Elam, AHIP,** associate director, Technical Services; and **Dohn Martin,** associate director, Medical Informatics; Gibson D. Lewis Health Sciences Library, University of North Texas Health Science Center–Fort Worth

A current trend in the information industry is digital imaging. The Gibson D. Lewis Health Sciences Library at the University of North Texas Health Science Center–Fort Worth (UNTHSC–FW) is using optical character recognition (OCR) technology for data entry of selected journal abstracts into an Osteopathic Literature Index Database. Because scanning was an add-on to the original project, adaptations were made that created both opportunities and challenges. Valuable insights have been gleaned from using this technique for data entry, including issues of software compatibility, post-scanning processing, staffing, and training. Conclusions for efficiency and effectiveness will be suggested. Solutions, change of procedures, and "how we would do it if we could do it all over again" will be addressed. The original project began in 1997, when the UNTHSC–FW and the Kirksville College of Osteopathic Medicine (KCOM) libraries were awarded a five-year $385,000 contract to develop the world's first comprehensive index to the international osteopathic literature. The Osteopathic Literature Index Database is being sponsored by the American Osteopathic Association (AOA) and the American Association of Colleges of Osteopathic Medicine (AACOM).

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## 66
## Library use survey of University of Texas Health Science Center–San Antonio faculty: comparison of 1996 and 2000

**Jonquil D. Feldman,** assistant to the library director, and **Virginia M. Bowden, Ph.D., AHIP,** Library director, Briscoe Library, University of Texas Health Science Center–San Antonio

In the spring of 2000, the library of the University of Texas Health Science Center–San Antonio (UTHSCSA) conducted a survey of a random sample of UTHSCSA faculty on their library use and perceptions of the collection and services. Questions were based on the faculty survey that had been conducted in 1996, with minor changes to account for resources that were not previously available. The survey measured how important the library resources and services are to professional productivity. Specific questions measured perceptions about the library's

electronic information resources, including full-text journals and databases and frequency of printing versus reading the documents on the screen. Open-ended questions elicited opinions on fee increases and prioritizing in times of limited funding. Responses were compared with the 1996 survey, with gratifying results showing that respondents in 2000 reported using library resources more, and the importance of resources and services had not changed significantly. This poster will show the survey and evaluation results.

## 67
## Merging the library with the medical curriculum: a Web-based approach

**Jacqueline Scolari, Ph.D.,** director, Medical Resource Center, and **Sarah Merideth,** curriculum coordinator, School of Medicine, Southern Illinois University–Carbondale

The school of medicine recognizes the importance of the library in delivery of the curriculum. To this end, the library strives to provide meaningful information resources and educational tools for students and faculty in the first-year medical curriculum. The school of medicine curriculum is problem based and emphasizes the importance of self-directed learning. Students work in small groups with a faculty facilitator to develop learning issues for research and further study. This research directly involves exploration of print and electronic resources. The purpose of this project was to create a Web-based resource that provides information essential to successful progress through the first-year medical curriculum.

Components of the Website:

Library—General Information, Library hours, Holiday schedule, Circulation periods, Special services (including renewing or requesting material)

Curriculum: Annual calendar, Weekly unit calendars, Resource faculty lists and links, Group lists, Learning issues, Clinical experience schedules, Other curriculum documents

Research and library links: Campus libraries, Research sources (including links to the library vertical file, medical databases, online journals, and curriculum related Websites)

News and events: Exhibits, New library resources

Written student and faculty, surveys are used to provide feedback about the Website. Respondents are asked to evaluate the site, as well as recommend additional resources for the library's collection. On the survey, respondents also are asked to provide suggestions for additional links and other improvements. Surveys are collected and compiled at the end of each curriculum unit. Consideration is also given to these responses when editing and updating the library and curriculum Website. In addition, data is collected as part of a longitudinal research project.

## 68
## A shared Web catalog: come hell or high water

**Patrice Hall,** librarian, Milton S. Hershey Medical Center, Hershey, PA; and **Valerie A. Gross,** librarian, Geisinger Health System, Danville, PA

Consumer health libraries are new to Central Pennsylvania. Many people are not aware of the relative ease with which they can access user-friendly, consumer-oriented materials or of the positive impact these materials can have on health outcomes. In March 1999, the Community Health Information Library and the Women's Resource Center, two consumer health libraries in the Penn State Geisinger Health System, submitted a LSTA grant application to the Commonwealth Libraries of Pennsylvania. The goals of the grant were twofold. The first was to make the resources of the libraries more visible and accessible by combining and automating the holdings of each library into a Web-based catalog. The second was to create an electronic version of the patient education brochures published by the health system and to make them available as part of the new automated catalog. Not unlike Odysseus, the two librarians faced many unexpected problems as they tried to achieve their goals. This poster session will describe their journey through the use of flowcharts and a timeline. It will also include a discussion of the lessons learned as they guided their project through the demerger process of their institution. A demonstration of the successfully implemented catalog will be presented.

## 69
## Consumer health information education initiative

**Jeanne B. Sadlik,** coordinator, Information Management Education; **Mary Klatt,** head, Research & Access Services; and **Logan Ludwig, Ph.D., AHIP,** associate dean, Loyola Health Sciences Library & Telemedicine; Health Sciences Library, Loyola University, Maywood, IL

With the proliferation of Internet access, the availability of consumer health information has grown to astronomical levels. As availability of this information increases, it is becoming increasingly difficult to find reliable and authoritative health information on the Web. Health sciences librarians are expanding their roles as providers and quality filterers of this information by helping professionals and consumers find and evaluate consumer health information on the Web. With the help of an NLM grant, the Health Sciences Library of Loyola University of Chicago is developing a consumer health information program. This program focuses on training public librarians and health professionals in the use of such Internet tools as PubMed and MEDLINE*plus.* These professionals will in turn educate their local publics. The program targets six communities in Illinois. Two seminars will be offered to health professionals and public librarians. Seminars will be presented through face-to-face contact for the three northern Illinois communities and through videoconferencing to the southern Illinois communities using the Illinois Rural Telehealth Alliance network. One seminar will focus on using PubMed. The other will focus on MEDLINE*plus* and locating and evaluating authoritative consumer health Websites. To support these seminars, the library has developed a consumer health Website, guides, handouts, and Web-based PowerPoint tutorials. Evaluations and feedback will follow each seminar. The seminars will take place between June 2000 and July 2001. In our poster, we will report on the design and development of this program and progress to date.

## 70
## Competencies for liaison work for health sciences librarians

**William Olmstadt,** client services librarian, Medical Sciences Library, Texas A&M University–College Station

Entry-level job descriptions for health sciences librarians frequently offer the new librarian the chance to serve as a liaison to a department, school, or outside agency, depending on the contacts the library has established. Such contacts are essential for providing quality service and assessing user needs. Yet often, these duties are given to new professionals who have no experience as liaisons. A five-part model of competencies for effective liaison work is proposed, including relevant interpersonal factors, in addition to specific kinds of knowledge about the library and the liaison clients. The model also identifies relevant political and environmental factors of which the liaison should be aware. These factors are tied to real examples from over a year of successful liaison work to a school of public health. The model can serve as a useful guide for many audiences, such as the new librarian in a liaison role, the experienced librarian in a new role as a liaison, and library managers preparing to hire. Additionally, for those librarians wishing to implement a formal liaison program, the model can serve as a basis for discussion.

## 71
## The Basic Health Sciences Library Network (BHSL): a grassroots interlibrary loan network-fifteen years of success

**Patricia Baldwin Regenberg, AHIP,** manager, Health Sciences Library, Mountainside Hospital, Montclair, NJ; **Marilyn L. Daniels,** manager, Health Sciences Library, Latrobe Area Hospital, Latrobe, PA; **Lydia Friedman, AHIP,** director, Medical Library Services, Degenshein Memorial Library, Maimonides Medical Center, Brooklyn, NY; and **Caryl Kazen,** chief, Library Service, Veterans Health Administration, Office of Information/Enterprise Strategy, Washington, DC

The Basic Health Sciences Library Network (BHSL), a free reciprocal, multi-state network, began operation in May 1986, with 132 charter members from four consortia in New York, New Jersey, and Pennsylvania. It currently boasts more than 430 members from 27 consortia in all nine states in NN/LM Region 1 and Region 8. The members exchanged more than 350,000 free loans in 1999. Because transactions are done on a free reciprocal basis, the dollar savings to member institutions are considerable. The network's organizational framework has been key to its success. Libraries are placed in one of eight levels based primarily on their interlibrary loan volume. Participants are asked to route each interlibrary loan request to the library that falls in the lowest level of the hierarchy for that given title, and routing tables are set up accordingly. Each participating consortium appoints a network coordinator who performs a number of important functions. Using statistics submitted monthly by their members, the coordinators monitor interlibrary loan patterns of their local group to ensure no library becomes overburdened. In addition, they provide input into the ongoing structure, focus, and activities of the larger network. As BHSL begins its fifteenth year of operation, it faces many challenges as well as many opportunities. In the year 2000, new membership standards were set in place. Included is a requirement that a librarian with a master's degree in library or information science manage each library. Another recent change has involved the network's union list, an essential piece in BHSL's smooth operation. From its inception, BHSL used the *Union Catalogue of Medical Periodicals (UCMP),* produced by the Medical Library Center of New York, to supply this vital service. New DOCLINE with its SERHOLD component means members will no longer have to pay to have their holdings managed. Finally, the advent of new DOCLINE opens up the possibility of interlibrary loan sharing across networks and NN/LM regions. The vision of the founders of BHSL has been more than realized and the opportunities for future growth are only beginning to be explored.

## 72
## Reaching across the border: outreach to Spanish-speaking health care providers using a bilingual Website of information resources

**Mary L. Riordan, AHIP,** associate librarian, Information Services, and **Jose Solorzano**, support systems analyst, Arizona Health Sciences Library, The University of Arizona–Tucson

Arizona's sole major medical resource library is the University of Arizona Health Sciences Library (AHSL) in Tucson. Established in the late 1960s to support teaching, research, and medical practice, today the AHSL serves the Colleges of Medicine, Nursing, Pharmacy, and Public Health; the School of Health Professions; University Medical Center; and, as a public tax-supported institution, Arizona health care providers and the general public. Due to Tucson's proximity to the United States-Mexico border, the AHSL has long sought an optimal means of extending our resources and services to Spanish-speaking health care providers and students from the Mexican state of Sonora. Recent developments in information technology provided the solution—creation of a bilingual Website of health information resources. Users may search MEDLINE for recent journal articles, determine if they are available at the AHSL by checking ALOE, our online catalog, and order either photocopies or electronic transmission of the information. They may also consult resources from health-related organizations, a multilingual medical dictionary, statistical resources, and resources providing bilingual consumer health and patient-education materials. This poster describes the development of the Website and outlines some of its major features.

## 73
## Library staff technology training: a two-tiered model

**Colleen Cuddy,** systems librarian; **Joan Dalrymple,** access services librarian; and **Trisha Stevenson Medeiros;** Ehrman Medical Library, New York University School of Medicine–New York

Through a review of current library literature as well as casual conversation with our own library staff, a need was identified to establish a continuum of staff training in computer technology and information services. The educational needs of the library staff were assessed via observation, interviews, logging incoming questions at public service areas, and reviewing helpline and information desk emails. Data gathered during the assessment assisted in the development and design of the staff training program and will provide a form of project evaluation. Based on the gathered data, a two-tiered staff training program was developed. The first phase addresses core computer competencies that are required by all library staff. Developed courses address the operating system, basic hardware, troubleshooting, and a variety of Internet and productivity software. Phase II is designed specifically for public services staff and staff who rotate at the information desk, but all interested staff are welcome to participate. It includes an introduction to the library, reference and searching strategies, and customer relations basics. The poster will graphically represent the project design and the ongoing process of staff training.

## 74
### Exploring new frontiers: collaborative relationships between medical libraries and bookstores

**Deborah A. Ruck,** information resources librarian, Libraries, Medical College of Wisconsin–Milwaukee; and **James Girouard,** bookstore manager, Matthews MCW Bookstore, Milwaukee, WI

Libraries and bookstores are often seen as competitors, but on our campus the library and bookstore are collaborators. Since 1998, the information resources librarian and the bookstore manager have been successfully experimenting with collaborative projects. One of the most notable endeavors has been the annual Board Prep Night. This is a unique event where the student body and staff from the bookstore, library, and academic affairs come together to share insight, study strategy, and experience, as well as hindsight, with second-year medical students preparing for the USMLE Step 1 Exam. To promote the event, we created a joint display of USMLE Step 1 Exam review products. The library provided prominent display space and bibliographic information, including call numbers, so that customers could find books quickly in either the bookstore or the library. The bookstore provided books, so that library copies remained available for use, and props such as stethoscopes, brass bookends, and medical bags. The library and bookstore also produced handout materials such as a joint bookmark listing top-rated and high-use review books, and a joint flyer featuring computer products available for use in the library or for sale in the bookstore. The bookstore manager and staff from the library were on hand at the event to share information on student preferences and answer questions about resources. Through collaboration, the library and bookstore are now able to provide customers with a greater variety of resources. In addition, customers have more options for access to these resources. The results have provided increased knowledge of products and publishing industry trends for both staff and customers. Other ideas for collaboration could include working with student groups and coordinators of continuing medical education seminars or national health observances such as "American Heart Month" in February. Let your imagination take you to "unknown planets" on your campus, and let your customers reap the benefits of your collaborative explorations!

## 75
### Using empirical data to develop a consumer health Web-based information resource

**Jeffrey Huber, Ph.D.,** associate professor, and **Mary Snyder, Ph.D.,** assistant professor, Texas Woman's University–Denton

The School of Library and Information Studies, Texas Woman's University (TWU), is collaborating with the Dallas Public Library System (DPL) to facilitate access to consumer health information (CHI) in the Dallas Metroplex area. TWU project staff are providing training to DPL staff members regarding the use of electronic CHI resources. Training sessions are available to all DPL staff members at the Central Library location, twenty-two branches, and the library's bookmobile. The Dallas Public Library System employs some 500 individuals. As part of this initiative, a Web-based information resource is being developed to facilitate training. The Web-based resource serves as the structured curriculum for demonstration and training sessions. Each session includes an evaluation component whereby DPL staff are provided the opportunity to give feedback regarding training and the utility of the Web-based resource. Feedback is incorporated into training sessions and used to refine the Web-based information resource. Ultimately, the Web-based resource will be turned over to DPL for staff to conduct demonstration and training sessions for their patrons. At the same time staff training sessions are being held, DPL patrons are being surveyed to determine prominent health information needs in the community as well as which, if any, electronic CHI resources are currently being used. Information gathered from the surveys is being incorporated into the Web-based resource. Following this model, the resulting Web-based resource will reflect the health information needs of the community, and Dallas Public Library staff will be adequately trained in using electronic CHI resources to locate relevant patron information. This poster will provide a general overview of the project but will include a special focus on using empirical data in developing the consumer health Web-based information resource.

## 76
### How did you find that? The odyssey of NOAH's online genetics information for patients

**Gail-Yvette Hendler, AHIP,** information services librarian, Medical Library, Memorial Sloan-Kettering Cancer Center, New York, NY; **Kristine M. Alpi, AHIP,** information services librarian, Samuel J. Wood Library, Weill Medical College of Cornell University, New York, NY; and **Patricia E. Gallagher, AHIP,** information specialist, Library, New York Academy of Medicine–New York

The definitive mapping of the human genome and recent advances in medical genetics have produced previously unimagined possibilities for twenty-first century medicine. Witnessing the explosive growth of molecular biology research reveals an increased understanding of the cause and treatment of human disease. Discoveries in cancer, on the molecular level, have led to widespread and expanding implications for screening, prevention, and treatment strategies. Practical applications of this new scientific data are rapidly translating into reality. What will the new medical genetics information odyssey mean to consumers? Patients read daily headlines (online and in print) that proclaim miraculous gains made from basic and clinical findings. The rapid pace of twenty-first century medical breakthroughs will result in an increased demand for the facts, the limitations, and the fundamentals behind the headlines. Consumers will need trustworthy information resources to support and inform medical decisions they will face about prenatal testing, genetic testing, and genetic counseling and, someday soon, gene therapy. Consequently, twenty-first century medical librarians must be prepared to meet the information needs of today's and tomorrow's health care consumers. New York Online Access to Health (NOAH), an online, reference library in English and in Spanish has launched guides to reliable, authoritative, and current information resources about cancer genetics and genetic diseases. NOAH's mission is to provide timely and unbiased health information to the general public. NOAH arranges information around the key issues patients ask and provides full-text answers to: what are genes, what are cancer genes, what is gene therapy, what is genetic counseling, and what are specific genetic diseases and information resources. Page editors are volunteer medical librarians who quality filter the best on the Web to improve the public's health. Doctors, nurses, and librarians have benefited from the easy access to hard to find information. Future plans include linking to multimedia (streaming) presentations by genetics specialists.

## 77
### Patron access to electronic journals and books in the hospital library

**Deborah L. Adams, AHIP,** director, Library and Internet Services, Library and Media Services, Botsford General Hospital, Farmington Hills, MI

In 1998, our hospital library jumped into the electronic journal arena. Given the fact that we had electronic journals through more than one vendor and maintained some print journals, it soon became clear that we needed an easier way for our library patrons to find these journals.

We created an Excel spreadsheet to start and then added URL links in our new online catalog in spring 1999. We also created a journal list on our intranet that provides links from each journal title to the appropriate database where it is housed. In 1999, we added some electronic books through one of our database vendors; these were also added to our online catalog. The next steps will be to provide links directly to each journal within the databases available on the Internet. We now have more than 214 electronic journals, 120 print journals, and 38 electronic books. Usage studies and a cost benefit analysis were conducted to determine if dropping print subscriptions in favor of electronic would still meet the needs of the patron and be cost effective for the hospital. This has led to keeping only a select few journals in both print and electronic. In addition to creating lists of the materials and where they are located, we also had to deal with accessibility issues for patrons both inside and outside the hospital. Patrons using the journals and databases via the intranet had to have Internet privileges. If they do not have Internet privileges, they cannot search them from the hospital network. If they use the intranet and have Internet privileges, we provide Internet protocol (IP) authentication to the journals and databases. But those patrons who want to access them from their home or office via the Internet, must have an ID and password to get to the databases. We continue to look for other ways to manage electronic journals and books so that our standards of high-quality service to our patrons will be maintained.

## 78
## The odyssey of a lifetime: a manual review of MeSH authority records in a local catalog

**Wendy Fritzel,** cataloger, J. Otto Lottes Health Sciences Library, University of Missouri–Columbia

It is important for authority records to have the fullest number of valid cross-references possible, because it helps ensure that patrons have subject access to the materials they need. To ensure the quality of MeSH authority records in the MERLIN consortium catalog (an Innovative Interfaces, Inc., system), a periodic review of the records is done. MERLIN libraries are those of the University of Missouri campuses (St. Louis, Columbia, Kansas City, and Rolla) and St. Louis University. Although the consortium utilizes authority service from a vendor (OCLC/WLN MARS®), this has been suspended for approximately two years. Because of this, and the fact that the last review of the authority records was five years ago, it was decided to compare the MeSH authority records against the 2000 MeSH Annotated Alphabetic List and the MeSH Browser located on the Internet (www.nlm.nih.gov/mesh/Mbrowser.html). The aim of the project was to ensure the completeness of authority records in the local catalog by updating them with cross references present in the 2000 MeSH Annotated Alphabetic List or in the MeSH Browser. Early on in the project, it was decided to keep track of the number headings in the local catalog that required updating with cross-references. The project began in January 2000 and continues. The plan is simple: locate the MeSH authority record in MERLIN by subject search and then compare the cross references to those in the 2000 MeSH Annotated Alphabetic List and in the MeSH Browser. The reason why the MeSH Browser was also used for comparison is that it often contains more cross-references than the Annotated Alphabetic List. Also, we could copy and paste headings from the MeSH Browser into our local catalog, saving typing time. Data was gathered on all alphabetical entries from F–O (n = 5561). Forty-seven percent of these were found in the MERLIN catalog, with 13% requiring the addition of cross references.

## 80
## Expanding the online public access catalog (OPAC)

**Mary Piorun, AHIP,** systems librarian, and **Pauline McCormick,** cataloger, Lamar Soutter Library, UMass Medical School, Worcester, MA

Purpose: This poster will describe the process of incorporating the manual card catalog of thirteen affiliate hospital libraries into one integrated library system (Endeavor).

Poster Information Will Include: Overview and evaluation of the project goals and objectives. A presentation describing the planning and implementation of project. A summary of the training methods used to educate representatives from the thirteen affiliate hospitals. Sample screen shots of the newly expanded online public access catalog (OPAC). Statistics reporting the number of records entered to date and usage statistics.

## 81
## The loanable arrangers: technology shared between departments

**Carol Thornton,** reference and education librarian; **Rhona S. Kelley, AHIP,** head, Reference and Education Services; and **Fran Kovach, AHIP,** reference and education librarian; School of Medicine Library, Southern Illinois University–Springfield

Purpose: This poster illustrates collaboration between two departments making a wide range of electronic equipment available to medical school faculty, students, and staff on a split campus.

Settings/subjects: The Southern Illinois University (SIU) School of Medicine is split between two campuses, Springfield and Carbondale, a distance of 174.4 miles. The SIU Medical Library is located in Springfield and the Department of Information Resources has personnel on both campuses. The school has a new curriculum that mandates using technology such as distance learning, videoconferencing, and the Internet. Not all departments can afford to buy the necessary equipment or have knowledge about its use.

Brief Description: The Medical Library and Information Resources formed a strategy of acquiring electronic equipment that could be shared by all departments on both campuses. This would avoid unnecessary duplication of expensive equipment and make it possible for departments to have access to a far wider range than they could have individually. The collection of loanable technology varies from laptop computers and projectors to battery chargers, networking cards, and handheld televisions. The library and Information Resources have promoted the availability of the equipment by exhibiting at school functions and by designing a Website that includes information about the equipment available as well as what items are needed to perform functions such as distance learning or videoconferencing.

Results/Outcome: Some items are very popular, and equipment continues to be added to the pool of loanable equipment.

Evaluation Methods: Usage of loanable items is tracked in several ways. Library items are checked out in the online catalog and monthly reports can be generated. Information Resources items are recorded in a spreadsheet when they are checked out and returned. Reports can be produced from the spreadsheet. SIU keeps statistics on the number of hits on each Web page, so it is possible to monitor usage of the Website.

## 82
## The Cunningham fellows of MLA

**Donna B. Flake, AHIP,** library director, Robert M. Fales Health Sciences Library, Coastal Area Health Education Center, Wilmington, NC; **John Breinich,** library director, Hawaii Medical Library–Honolulu; **Elizabeth Connor, AHIP,** librarian, Library, Medical University of South Carolina–Charleston; **Elizabeth Eaton, Ph.D.,** librarian, Tufts University, Health Sciences Library, Boston, MA; **Ruth Fenske, Ph.D., AHIP,** librarian, Grasselli Library, John Carroll University, University Heights, OH; **Jacqueline Donaldson Doyle, AHIP,** library director, Health Sciences Library, Banner health Arizona–Phoenix; Anne Greenspan, Reseearch and Professional Recognition coordinator, Medical Library Association, Chicago, IL; Frieda O. Weise, library director, University of Maryland, Health Sciences and Human Services Library, Baltimore, MD

The Medical Library Association Cunningham Fellowship Program provides funds for one medical librarian per year from outside the United States or Canada to work and learn in United States and Canadian medical libraries for a four-month period of time. A total of thirty-two Cunningham Fellows have participated in this program. This poster will provide a world map with the home location of all of our thirty-two Cunningham Fellows. It will provide names of the fellows and, whenever possible, a photograph of the fellow. It will also provide interesting comments from some of the fellows to provide insight into the Cunningham Fellowship experience. In May 1999, an MLA taskforce to study the Cunningham Fellowship was established. The taskforce was charged with evaluating the goals, objectives, organization, and structure of the Cunningham Fellowship program. The taskforce members became aware that the Cunningham Fellowship program needs more visibility *within* MLA, as well as to the outside world. All the members of the Cunningham taskforce are submitting this poster session together in hopes of informing the MLA membership about this superb program.

## 83
## Celebrating National Medical Librarians Month

**Judy J. Willis, AHIP,** assistant director, Public Services; **Kathryn J. Hoffman, AHIP,** executive director; **Wes H. Browning,** assistant director, Information Systems; **Brett S. Powers,** reference and education librarian; and **Sheryl Widdoes**, reference and document delivery librarian; M. D. Anderson Cancer Center, The University of Texas–Houston

University of Texas M.D. Anderson Cancer Center needed a way to increase user awareness of its resources and services. The celebration of National Medical Librarians Month provided a practical venue to showcase the library and heighten user awareness throughout the institution. Several special open house events were held that demonstrated Internet resources and full-text online journals. The open house events also allowed the library to introduce its recently completed state-of-the-art computer classroom. An exhibit promoting services and programs of the National Network of Libraries of Medicine was displayed in a central location in the library. To promote the celebration, articles were published in the institution's weekly newsletter; posters were displayed in strategic locations throughout the institution; flyers were distributed with interlibrary loan mailings; electronic notices were placed on library public workstations; and promotional materials such as bookmarks, banners, and buttons were created. This poster session will address the objectives, methodology, and results of coordinating a National Medical Librarians Month celebration at the Research Medical Library.

## 84
## NewsBytes: an electronic user awareness service

**Kathryn J. Hoffman,** executive director; **Wes H. Browning,** assistant director, Information Systems; and **Brett S. Powers,** reference and education librarian; M.D. Anderson Cancer Center, University of Texas–Houston

University of Texas M.D. Anderson Cancer Center needed a timely and efficient way to alert users to new library resources and services. The library has built a successful Web presence at the institution, and it was felt that an email-based monthly newsletter would be a natural extension to reach a large user base of busy physicians and students. The newsletter was designed to be easy to read and brief in content. Such items as new electronic full-text resources, databases, classes, Websites, and library services would be addressed in each issue. The service was subscription based and was promoted via flyers, notices on the library Web page, and a mass email to the institution. Electronic and paper registration forms allowed users to easily subscribe to the service. A Web-based version of the newsletter, along with a past issues archive, was also created on the library's Website. Readers assessed the service via an electronic survey. This poster session will address the objectives for implementation, the methodology used in creating and maintaining the newsletter, and user survey results.

## 85
## Using EndNote for electronic journal management in a hospital library

**Melissa L. Just, AHIP,** director, Library Services, Childrens Hospital Los Angeles, Health Sciences Library, Los Angeles, CA

Providing links to and information about electronic journals from the library Website takes a large amount of time and effort. Many libraries use database systems with Web interfaces that build lists on the fly. Although this is feasible in libraries with dedicated Web managers or strong institutional technology support, smaller libraries often do not have the expertise or tools for database solutions. At the Children's Hospital Health Sciences Library, a hospital library with a half-time librarian, managing electronic resources seemed an impossible task. Because of the hospital's affiliation with Children's Hospital, hundreds of e-journals are available to the staff. One option was to hard code an alphabetic list of e-resources using an HTML editor. However, once created, the list would be time consuming to modify. Separate lists would also need to be created for different subject categories. A database solution seemed necessary. Even though the librarian was unfamiliar with standard relational database programs, she was familiar with EndNote, a personal bibliographic management program. With a little knowledge of HTML and a copy of EndNote, managing e-resource lists became easy. Once the software is configured and the data entered, the librarian can produce lists alphabetically and by subject in HTML format. If necessary, the HTML design can be easily updated and resources may be added or deleted quickly. Links to the resources and descriptions can also be included. This poster will illustrate the step-by-step process of creating e-resource lists with EndNote.

## 86
## Community discussion forums on On Our Own Terms: Moyers on Dying series

**Beatriz G. Varman,** and **Deborah Halsted,** director, Library Operations, Texas Medical Center Library, Houston Academy of Medicine, Houston, TX

The Texas Medical Center Library, Houston Academy of Medicine (HAM-TMC) Library is one of twelve libraries nationwide, and the only medical library, selected to receive funding for local programming related to the On Our Own Terms: Moyers on Dying, a special Public Broadcasting Service (PBS) series hosted by Bill Moyers. The purpose of the funding was to create and develop a community resource guide on end-of-life care information to be widely distributed, plan four community discussion forums to reach health professionals as well as the general public to discuss physical, psychological, emotional, and spiritual issues related to the end of life and develop a collection on end-of-life care resources in the library. The library partnered with multiple community organizations including KUHT Houston Public Television. Programs included phone-in sessions with local experts following the final Moyers broadcast and a large community forum held on a Saturday. Future library forums will continue to stimulate dialog and encourage discussions in different aspects on end-of-life issues and make people aware of the different resources available in the library. Videos and books have been added to the consumer health collection, which circulates to the general public.

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## Providing consumer health information to Asian Americans: a collaborative model

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According to the 1999 U.S. Census Bureau, the Asian population in Houston has increased 67.2% in the last ten years. To provide outreach to these underserved residents, the library staff worked with community leaders and our Friends of the Library group to plan and implement Asian health kiosks. These kiosks were equipped with consumer health information in Chinese and Vietnamese. Health materials in other Asian languages will be added throughout the coming year. Future plans include an Asian-language Web page, onsite computers, and train-the-trainer courses. This poster traces the path of planning, collection development, implementation, and long-range goals for the kiosks located in Asian-specific areas of our city. The objective of this session is to provide librarians with ideas for implementing programs to serve the Asian segment of their citizenry. A bibliography of consumer health resources in Vietnamese and Chinese will be provided.

## 88
## Electronic whiteboard technology: an odyssey in information sharing in the classroom or the exhibit hall

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In a classroom, the librarian must keep the students focused on the topic at hand. At an exhibit, it is necessary for the librarian to attract and keep the attention of the meeting participants. Using the electronic whiteboard in both of these types of situations can enable the instructor or the exhibitor to enhance the presentation. Electronic whiteboard technology combines the simplicity of a whiteboard with the power of a computer to become an interactive tool in the classroom or the exhibit hall. Using a computer connected to a data projector allows the instructor to access and display information from the Internet by touching the screen. The instructor can also use video from a camera or VCR or deliver CD-ROM or other multi-media resources, by simply touching the electronic whiteboard. As on a traditional whiteboard, the instructor can use a colored pen and write on or highlight the application to illustrate a point. In a classroom, learning experiences are enhanced and principles of information access are clarified by using a combination of the electronic whiteboard, computer, data projector, PowerPoint slides, and Web demonstrations. In the exhibit hall, the use of the electronic whiteboard with a data projector and Web access allows for a larger projection area and easy demonstration of appropriate Websites This poster will highlight applications of the electronic whiteboard in both the classroom and the exhibit hall. It will include techniques, pros, and cons of using the electronic whiteboard technology.

## 89
## A model for staff development planning in an academic health sciences library

**Rebecca Abromitis,** reference librarian, Western Psychiatric Institute and Clinic Library; **Linda Hartman,** reference librarian, Falk Library of the Health Sciences; and **Alice Kuller,** reference librarian, Falk Library of the Health Sciences; University of Pittsburgh, Pittsburgh, PA

A Staff Development Committee (SDC) was convened in January 1999 to implement staff development opportunities at our university's health sciences libraries. Both the university and affiliated medical center offer many personal and professional enrichment programs, and the SDC was charged with utilizing this rich environment to:

1. develop programs to enhance workplace skills and personal growth,
2. communicate the availability of existing programs at the university and medical center,
3. encourage the staff to participate in these opportunities.

When the SDC was organized, approximately sixty-seven FTE library staff worked in three separate locations that included a health sciences, a psychiatry, and a nursing library. Implementation of an ongoing staff development program was viewed as a way to help improve communication in the workplace, provide personal enrichment, and develop camaraderie among staff members in the three libraries. The seven-member committee created goals and objectives and developed a survey designed to give staff the opportunity to provide input for this initiative. With a 60% response rate, the survey results were used to plan fifteen events based on staff needs and preferences. Successful first-year events included software training, email training, a supervisory skills class, a customer service workshop, a civic volunteer project, a baseball game, a play, and four "brown bag" lectures. In addition, eight "open house" sessions were held to highlight the unique functions of each department or library within the library system. Total attendance for SDC sponsored events from July 1,1999–June 30, 2000, was 459. Committee members serve as liaisons for each event. Two forms were developed to facilitate event planning: "Program Planning & Event Evaluation Form" and "Checklist of Responsibilities for Event Liaisons." A monthly announcement sheet, email reminders, and an internal Website are used to

communicate upcoming SDC events and encourage attendance. The structured approach to planning the first year of programs resulted in a diverse offering attended by all levels of staff, from shelvers to administrators. This approach can serve as a useful model for similar program planning in any organization.

## 90
## Iowa Health Information Outreach (IHIO): delivering health information to rural and underserved Iowa health care professionals

**Neville D. Prendergast,** coordinator, Information and Educational Services, and **Sandra Phelps,** reference librarian, Hardin Library for the Health Sciences, University of Iowa–Iowa City

The Hardin Library for the Health Sciences, University of Iowa, was awarded a National Library of Medicine, National Network of Libraries of Medicine (NN/LM) Greater Midwest Region (GMR) outreach grant, November 1, 1999–April 30, 2001, for a project titled "Enabling Access to Health Information Resources for Non-Metropolitan and Underserved Health Professionals in Iowa." The project goal is to provide health care professionals in non-metropolitan and underserved areas of Iowa knowledge and skills that will empower and enable them to use Internet-based resources effectively and to incorporate these into their practice, so that available health information resources will drive their decision making and patient care agendas. Seven health care professional groups—physicians, dentists, pharmacists, nurses, nurse practitioners, physician assistants, and psychologists—in nine rural Iowa counties were identified and targeted. The project is in three phases. Phase I: site visits to these counties were arranged. Each visit was a two-hour, hands-on Internet training session covering PubMed, MEDLINE*plus,* and Internet basics. Trainers have two available laptops with Internet connectivity. This first phase included a preliminary information access survey to determine participants' access to and use of the Internet, U.S. library resources, and databases. Each session was evaluated by participants. A project Web page was developed to provide specific ready access to Web resources. Phase II: a video-conference broadcast over Iowa Communications Network (ICN) to all six sites from Hardin Library. This was designed to demonstrate health information Web resources, particularly those of the University of Iowa and Hardin Library, search engines, and a presentation on evaluating Internet resources. The upcoming Phase III will be a second set of visits. These sessions will be hands-on to reaffirm PubMed training, addressing questions on Internet access, continuing information seeking options beyond the project period, and document delivery. Participants in five of the seven professional groups were eligible for continuing-education credits for Phases I and II. Other successes include increased awareness of and access to Internet health information resources like PubMed, heightened appreciation for Internet connectivity, more use of document delivery options, and the IHIO Web page. The presentation will include detailed statistics.

## 91
## The"best" lists: health sciences libraries, medical schools, and where you are ranked by

**Kelly Hensley, AHIP,** assistant professor/interlibrary loan librarian, Sherrodd Library, East Tennessee State University–Johnson City

Purpose: Discuss the controversial ranking of professional schools by media such as *U.S. News and World Report* and others; compare these lists to the quantitative data health sciences libraries as benchmarks to determine the importance of information resource in the "best lists" rankings.

Methodology: Statistical analysis and comparison.

Results: The rankings of three "top ten" or "best schools" have become almost an annual event, with even medical schools touting their rankings on these lists, despite the shaky methodologies. Lists of medical schools were compared for reliability of the varying methodologies. A ranked list of health sciences libraries resources was compared to the "best" lists to determine any correlation between the ranking of institutes and their libraries.

Discussion/Conclusion: In this ongoing project, the "best" lists of medical schools typically, but not always, correspond within a standard deviation of lists of "best" libraries, as judged by such factors as amount spent annually on resources.

## 92
## Signs of the times: images of women in medical and pharmaceutical advertisements, 1900–2000

**Kelly Hensley, AHIP,** assistant professor/interlibrary loan librarian, Sherrod Library, East Tennessee State University–Johnson City

Purpose: Describe trends in the depiction of women in advertisements in medical journals and magazines aimed at physicians; link to developments in broader culture.

Methodology: Journal content analysis.

Results: Analysis of the advertising content of more than forty medical journals from the turn of the nineteenth to the turn of the twentieth century revealed a mirroring of the greater society. Early in the 1900s, there were few advertisements in medical journals, which were supported by subscription fees or dues. As the emerging pharmaceutical and medical industry developed more products, ads began to appear in journals. Currently, the Pharmaceutical Manufacturers Association estimates that almost 9% of sales revenue is spent on publicity; the Food and Drug Administration puts that figure at 24%. The resulting flow of advertising content has depicted women in a variety of ways, directed toward an audience of health care professionals.

Discussion/Conclusion: Physicians have been and continue to be exposed to current stereotypes about women in advertisements that appear in medical journals.