MLA '11 Abstracts

A Supplement to the *Official Program*

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MLA'11 rethink

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Contents

Section Programs 1 ..... **2**
Sunday, May 15, 4:30 p.m.–6:00 p.m

Section Programs 2 ..... **9**
Monday, May 16, 10:30 a.m.–noon

Section Programs 3 ..... **18**
Monday, May 16, 3:00 p.m.–4:30 p.m.

Section Programs 4 ..... **28**
Tuesday, May 17, 3:00 p.m.–4:30 p.m.

Poster Session 1 ..... **37**
Sunday, May 15, 2:00 p.m.–3:00 p.m.

Poster Session 2 ..... **56**
Tuesday, May 17, 1:00 p.m.–2:00 p.m.

Poster Session 3 ..... **75**
Tuesday, May 17, 2:00 p.m.–3:00 p.m.

Index **93**

Section Programs 1
Sunday, May 15, 4:30 p.m.–6:00 p.m.

2011 National Program Committee

Ignite MLA

Minneapolis Convention Center, Room 101D/E, Level One
Ignite your mind. Come witness a new type of presentation. The MLA Ignite session will be a fast-paced and fun gathering where twelve speakers each have five minutes to tell you about the latest in health, information, and technology. Slides auto advance every fifteen seconds, making this an energetic and exciting session that will keep you on the edge of your seat. Topics were solicited in April to discover the most recent and relevant themes impacting our profession. Session and speaker details will be published in the *Official Program* addendum and on SCHED, the online itinerary planner.

Dental Section

Fifth Annual Lecture on the Evidence Base, Rethinking the Librarian's Role in Electronic Health Records (EHRs), Personal Health Records (PHRs), and Electronic Medical Records (EMRs): A Place at the Table

Sponsored by STAT!Ref.
Cosponsored by Consumer and Patient Health Information Section, Health Association Libraries Section, Medical Informatics Section, Nursing and Allied Health Resources Section, New Members SIG

Minneapolis Convention Center, Room 101A, Level One

4:35 p.m.
Getting Invited to the Table: Using Pilot Projects to Demonstrate Library Value
Mary Beth Schell, Director, North Carolina Area Health Education Center Digital Library; **Jim Curtis,** Deputy Director; **Adam Dodd,** Web/Database Developer, North Carolina Area Health Education Center Digital Library; Health Sciences Library, University of North Carolina–Chapel Hill
Objective: We want to convince our stakeholders who are working on electronic health record (EHR) implementation to bring librarians to the table. We are seeking ways to integrate librarians into EHR implementation teams and demonstrate our value. We want to discover our constituents' information needs and develop a pilot project or projects that can meet some of those needs.
Methods: Setting: We support a statewide network of hospitals and health sciences libraries. This network also supports our state's federally funded Regional Extension Centers (REC). Exposures: We provided technical support in developing a pilot project to create an information portal to support clinical decision making. We worked with smaller community hospitals to streamline access to library resources using local EHR authentication systems. We provided support to our state's REC consultants. After initial informal needs assessments with the REC consultants, we developed projects to facilitate the virtual collaborative work processes, which are essential in providing geographically dispersed professionals with the capability to provide ongoing support to primary care facilities. We also developed a project to track, analyze, synthesize, distribute, and archive access to key news, information, and documentation about EHR implementation through the federally funded stimulus programs.
Results and Conclusions: It is still too early to draw definitive conclusions about the impacts of our projects. The greatest need at this time was not so much for the provision of library resources through the EHR, but for assistance in managing the information needs surrounding implementation. Librarians should utilize skills in information seeking and organization. For librarians to facilitate information discovery and organization, we must first develop a fundamental understanding of the subject matter of this emerging domain. We need to be able to find relevant news, documentation, policies, and procedures. Once we assist in finding this information, our most critical role seems to be in organizing, archiving, and accessing this information. A whole new area of increasingly important gray literature is growing out of these projects, and the librarian's value is greatly enhanced by our ability to help manage this new body of information.

5:00 p.m.
Invite Yourself to the Table: Librarians Contribute to Their Hospital System Electronic Medical Record
Margaret M. Bandy, AHIP, FMLA, Manager, Library and Media Services, Exempla Saint Joseph Hospital, Denver, CO; **Susan Brandes,** Medical Librarian, Library Services, Exempla Good Samaritan Medical Center, Lafayette, CO; **Karen K. Wells,** Manager, Medical Library, Exempla Lutheran Medical Center, Wheat Ridge, CO
Objective: To demonstrate that librarian involvement in electronic medical record (EMR) activities at Exempla Healthcare would promote the addition of evidence-based resources accessible from within an EMR and that EMR order sets developed for computerized provider order entry (CPOE) would be evidence based.
Methods: Librarians from Exempla Healthcare initiated contact with the chief medical information officer (CMIO) regarding evidence-based medicine (EBM) activities related to the pending EMR. Subsequently, the librarians have been involved in three specific initiatives to date. They were asked to provide comparative information on several products to assist in selecting a point-of-care resource to integrate into the EMR. The CMIO asked them to provide evidence as needed for the CPOE order sets being developed, and most recently the librarians were invited to participate along with clinicians representing the three hospitals on an evidence-based advisory council (EBAC) organized by the CMIO. Purposes of the committee include improving quality of decisions where strong clinical evidence exists, addressing variation in practice patterns by examining the evidence, and promulgating EBM methodology throughout the system for use in decision making.
Results: The comparative information on point-of-care products provided by the librarians resulted in selection of a product to integrate into the EMR. When evidence was not easily available to add to the order sets, the librarians provided it. For the EBAC, the librarians have developed a structure for addressing the clinical questions and to date have provided evidence-based literature addressing five clinical questions. In addition to performing literature searches, the librarians participate in the discussions on changes to order sets. In some cases, order sets have been revised to reflect best evidence and references to the evidence is linked for provider education.
Conclusions: By initiating contact with the system CMIO, librarians have demonstrated that their knowledge and skills can contribute to the inclusion of evidence-based literature into the EMR and to the adoption of evidence-based methodologies throughout the hospital system.

5:25 p.m.
The Role of Clinical Decision Support in Improving the Safety, Quality, and Efficiency of Patient Care at Exempla Healthcare
Terri Casterton, Electronic Medical Record Clinical Decision Support Application Coordinator, Exempla Healthcare, Denver, CO
Description: In 2006, Exempla Healthcare selected Epic for their electronic medical record (EMR). The chief medical information officer recognized that clinical decision support (CDS) would be an essential component of a robust EMR that would contribute to patient care quality and safety. CDS was established in January 2009 to develop the tools needed by clinicians to make good decisions that lead to best possible outcomes. The speaker will describe tools such as alerts, reminders, and evidence-based order sets. She will address how computerized provider order entry (CPOE) works with the order sets and how CPOE development uncovered areas of clinical variation, leading to the creation of the Exempla Healthcare Evidence Based Advisory Council (EBAC) in August of 2010. The speaker will also explain what the EMR problem list is, why it is important, how it should be used, and how it is related to meaningful use. The speaker will also talk about working with Epic and a point-of-care product vendor to create links from the problem list to the product.

Hospital Libraries Section

The T-shaped Librarian

Cosponsored by Consumer and Patient Health Information Section, Complementary and Alternative Medicine SIG, Corporate Information Services Section, Leadership and Management Section, Molecular Biology and Genomics SIG, Library Marketing SIG

Minneapolis Convention Center, Room 101F/G, Level One

4:35 p.m.
Embedding Clinical Tools in the Clinical Culture at Stanford
Heidi A. Heilemann, AHIP, Associate Dean, Knowledge Management, and Director, Lane Medical Library and Knowledge Management Center, Stanford University, Stanford, CA

4:55 p.m.
Model Template for a Health Care Knowledge Management Center
Mark Goldstein, AHIP, Network Coordinator, National Network of Libraries of Medicine, New England Region, Medical School, University of Massachusetts–Shrewsbury

5:15 p.m.
Use Your Expertise to Help Your Community with Their Knowledge Management Needs.
Margaret M. Bandy, AHIP, FMLA, Manager, Library and Media Services, Exempla Saint Joseph Hospital, Denver, CO
Objective: To help clinical teams with their knowledge management needs, librarians participate on those teams, help capture and preserve the knowledge created, and deploy available technology to help organize it.
Methods: Exempla Saint Joseph Hospital librarians support a number of clinical teams including clinical microsystems, improvement teams, and journal clubs. The librarians fully participate, attending meetings where they contribute ideas, observe the exchange of knowledge, and respond to literature requests. Through this active participation, the librarians became aware that the groups were not effectively capturing the knowledge they were sharing and creating. Often teams would store their documents on the three-hospital system's shared drive, which had grown increasingly unwieldy, making retrieval difficult. One librarian offered to set up shared work spaces for a number of the teams, using an available technology called microsites. This activity has positioned the librarian for a new role, providing knowledge management services. Other teams have asked for similar assistance. Currently, the librarian is participating in and providing knowledge management services to a system-wide culture of safety planning team.
Results and Conclusions: Through their active participation, the librarians have increased their own knowledge of the teams' issues and are regarded as essential members of the teams and facilitators of knowledge sharing and capture.

5:35 p.m.
Finding New Ways to Support the Creative Life of an Academic Medical Center: Developing a Nursing Publications Database
David C. Stewart, AHIP, Associate Director, Public Services, Coy C. Carpenter Library, School of Medicine, Wake Forest University, Winston-Salem, NC
Objective: Create a database of published articles, books, book chapters, abstracts from conferences, poster presentations, and grants information from nurses that will display these data in a standardized bibliographic citation format and that will be publicly accessible
Methods: The director of nursing education and research expressed frustration in not being able to accurately account for all of the publishing activities of our hospital's nurses. I proposed the creation of a nursing publications database modeled on one the Carpenter Library already maintains for faculty publications from the Wake Forest University School of Medicine. Working with our department of information services, we created a data entry template modeled on the faculty publications template but with additional fields for information specifically related to grants funding information and poster presentations. The library offered a staff member to enter and verify the data. Online submittal forms for new submissions were created as well. North Carolina Baptist Hospital now has an accessible database of publications to which nurses can submit any publishing activity they undertake: posters, speeches, journal articles, and funding awards. Nursing administration can run reports at anytime on this activity with the assurance that this information is accurate, complete, and up to date.
Results: The database is accessible at www.wfubmc.edu/Library/Research-and-Publishing/Nursing-Publications.htm.
Conclusions: Find areas where the library can make a difference and create collaborative projects.

Medical Library Education Section

Instructional Best Practices

Cosponsored by Complementary and Alternative Medicine SIG, Educational Media and Technologies Section, History of the Health Sciences Section, Libraries in Curriculum SIG, Outreach SIG

Minneapolis Convention Center, Room 101B, Level One

4:35 p.m.

Beyond Sutures: Integrating Library Instruction into Surgery Clerkship and Measuring the Results: A Cautionary Tale

Julia Whelan, AHIP, Reference and Education Services Librarian, Countway Medical Library, Medical School, Harvard University, Boston, MA; **Elizabeth Breen,** Assistant Professor and Director, Surgery Core Clerkship, General Surgery, Brigham and Women's Hospital, Boston, MA; **P. Scott Lapinski,** Digital Resource and Services Librarian, Countway Medical Library, Medical School, Harvard University, Boston, MA; **Gita Mody,** Clinical Fellow, Surgery, Surgery Education, Brigham and Womens Hospital, Boston, MA

Objective: Are surgery clerkship students who attend a library class more efficient and effective at finding information? Do they use more specialized surgery information sources? Do they find higher quality, more relevant, and more current evidence? Does their comfort in using this evidence for patient care correlate with its quality? Can this study provide quantitative evidence for library instruction outcomes?

Methods: A librarian teaches a class to surgery clerkship students at one teaching hospital, while students at three other sites receive no instruction. This study hoped to demonstrate that students receiving instruction developed better information skills, thus supporting expanded instruction. The program in medical education and committee on human subjects approved this study. The National Network of Libraries of Medicine, New England Region, provided funds. We invited all clerkship students to participate. Students gave consent and were asked to complete an online survey and information challenge. Based on their previous research experience, students were assigned one of two topics, randomized, or dropped. Two librarians scored results based on: quality of the evidence found, students' ability to correctly identify the type of evidence, speed, confidence in using this evidence for patient care, and use of sources that were new to them.

Results: Fifty-three students began survey; 46 completed information challenge. Fourteen (26.4%) participants had taken the class. Median time to complete survey: 9.2 minutes in-class group versus 8.0 minutes in non-class group (P=0.47). Nine students (69.2%) who took the class correctly identified the level of evidence they produced versus 20 (60.6%) non-class students (P=0.59). There was no statistical difference in the remaining scores between the 2 groups.

Conclusions: What can be learned from these results? Study flaws included: participants who did not complete the challenge, small number of participants (14) who took the class, and attempt to measure too many complex outcomes. Initial difficulty in finding statistical support was a major problem. Recommendations for future researchers: obtain statistical support during planning, limit number of outcomes and measure them in a simple way, provide participant incentives only to those who complete entire instrument, and score results of a required assignment.

4:55 p.m.

Using Role Play to Teach Literature Search Skills to Pharmacy Students

Jennifer R. Martin, Assistant Librarian; **Sandra S. Kramer**, Assistant Director, Services; Arizona Health Sciences Library; **Marion K. Slack**, Professor, Department of Pharmacy Practice and Science; The University of Arizona–Tucson

Objective: To use role play to demonstrate the search process for obtaining the literature students need to write a proposal for a research project.

Methods: Two librarians serve as liaisons to a college of pharmacy. The course instructor initiated the use of both role play and worksheets in a class for writing a research proposal to ninety professional third-year students at a state university. During the role play, the instructor assumed the role of a student consulting a librarian to gather appropriate literature; the second librarian used the classroom computer to act as the student conducting the search following the instruction. Upon locating a relevant study report, the librarian would discuss how to use the information to locate other resources, such as a randomized controlled trial. The worksheet required students to follow the role play and identify specific items in the search and provide feedback. Follow-up voluntary workshops were offered where the librarians provided individual instruction and searching assistance.

Results: Most comments (73%) from the worksheet contained positive feedback; specific comments also will be summarized. In the previous years with a standard lecture presentation, 4 students attended the follow-up workshop. After the role play, 24 students attended. Instructors perceived that the role play made search strategies and the thought process explicit and modeled collaboration skills.

Conclusions: Role play appears to be an effective instructional strategy for demonstrating the literature search process. Additionally, the role play models collaboration between the student and librarians, to effectively retrieve relevant literature for writing their research proposals.

5:15 p.m.

Preparing Students to Practice Evidence-based Medicine in Residency: Rethinking Pre-post Evaluation Method after a Pilot Course

Assako N. Holyoke, Medical Reference Librarian, Medical Center Library; **James J. Deckert,** Associate Adjunct Professor, Family and Community Medicine; Saint Louis University, St. Louis, MO

Objective: To assess skill acquisition specifically, as opposed to merely understanding concepts, for students taking a self-directed, web-based, evidence-based medicine (EBM) information skills course.

Methods: The previous pilot course with a pre-post test on EBM concepts showed effective learning, but whether or not students' literature search skills improved at the end of the pilot course was not clear. To find that out, the pilot course was revised in several ways. In particular, two pre-course literature search exercises were added. This allows comparison of pre-course search results with results of the graded literature search exercises students must perform at the end of the course. The final literature search exercises, in fact, cover the same clinical scenarios as the pre-course exercises, so direct comparison of results is possible. However, in the pre-course literature search exercises students are free to follow any procedure they choose. The graded exercises supply more guidance in formulating a targeted strategy. The paired t test analysis will be used to assess the progress shown in those search exercises as well as in EBM tests.

Results: Thirty-six out of 41 students who registered for the course completed the course to date; 25 were included in the

pre-post test study and 29 were included in the pre-post literature search study. On average, students improved their pre-post test scores from 7.28 to 8.6 (maximum score of 10), and their pre-post literature search scores from 73.33% to 92%. A paired *t* test analysis applied to both sets of data showed a statistically significant difference (<0.001). This difference increased when students who scored less than or equal to 80% on the pre-course literature search were analyzed separately. This least-prepared subset of students all demonstrated substantially improved skills in the post-literature search exercise.
Conclusions: The consistent success of the subgroup of less than or equal to 80% score supports that the course provided useful elevation of skills prior to residency training. The pre-post format showed itself to be effective in assessing students' improvement.

5:35 p.m.
Group Activities in Online Instruction: A Social Knowledge-sharing Group Exercise to Evaluate the Implementation of National Library of Medicine's 2006–2016 Long Range Plan
Charles J. Greenberg, Coordinator, Curriculum and Research Support, Program Development and Research, Cushing/Whitney Medical Library, Yale University, New Haven, CT
Objective: Medical librarianship is taught as an online elective at San Jose State University's School of Library and Information Science. With a 33% growth in class size in fall 2010, the instructor sought an instructional method to make learning more efficient and interesting. The instructor planned and implemented a small-group social-bookmarking assignment focusing on the evaluation of the National Library of Medicine's (NLM's) 2006–2016 Long Range Plan.
Methods: Setting/Participants/Resources: The instructor registered for a "Teacher Console" at the Diigo website and divided the class into six four-student groups. Each student received an instructor-initiated individual and group Diigo identity and instructions to install the Diigo browser toolbar. Students were introduced to the NLM goals detailed in the NLM 2006–2016 plan in an online lecture. Each group was asked to discover and tag evidence for their chosen NLM goal in the form of twenty Diigo bookmarks posted in their Diigo group. Groups were required to tag their evidence with goal numbers and provide either a captured image sample or an original annotation explaining their selection. Each group received a grade for this collaborative activity, and a survey was conducted to assess their satisfaction with the learning that took place in this activity.
Results: All students completed the entire course in mid-December 2010. In early February, all members of the class were offered the opportunity to complete on online survey about their participation in the social bookmarking assignment and their satisfaction with their learning and grade outcome related to this assignment; 87.5% of the students (n=21) completed the survey, which asked 8 questions, 5 of which were 5-point Likert-scale questions with responses ranging from strongly disagree to strongly agree. One open-ended question asked for qualitative comments on their assignment experience. Results show significant student satisfaction with annotated bookmarking as an effective way to share information among online partners.
Conclusion: Based on satisfaction and student performance on this course component, social bookmarking will continue as a group activity for class members of future classes.

Research Section

Refining Research: From Start to Finish

Cosponsored by Medical Library Education Section, Medical Informatics Section, Osteopathic Libraries SIG

Minneapolis Convention Center, Room 101C, Level One

4:35 p.m.
First a Good Question and Then an Appropriate Research Method
Michelynn McKnight, AHIP, Assistant Professor, School of Library and Information Science, Louisiana State University–Baton Rouge
Description: The research question must be clear and address a significant problem. In a good reference interview, it is a waste of time to plan a search before you have a clearly defined question. Choosing the best scientific research method to create evidence that will answer a particular research question is as important as choosing the right reference source to use for a reference question. And the best research method or reference source for your question may not be your favorite, most handy, or most familiar one!

4:50 p.m.
Refining the Process and Doing the Work
Ellen G. Detlefsen, Associate Professor, School of Information Sciences, University of Pittsburgh, Pittsburgh, PA
Description: Have you chosen a problem and identified a method for investigating it? Then it is time to move on to the next phase of the project: doing the research! Implementation strategies, time management, funding concerns, consent issues, and building of a team of colleagues and consultants are crucial to completing a research project. Tips and ideas for moving a research project toward completion will be discussed, and typical barriers to success will be identified together with ways to deal with them, with the goal of moving your research project along to a successful end point.

5:05 p.m.
Getting to the Heart of the Matter: An Overview of Research Data Collection and Analysis
Ana D. Cleveland, AHIP, Regents Professor and Director, Health Informatics and Houston Programs, Department of Library and Information Sciences, College of Information, University of North Texas–Denton
Purpose: This paper outlines the process of collecting and analyzing data for research projects.
Brief Description: An overview of general techniques for quantitative and qualitative data collection and analysis will be presented. Emphasis will be placed on the importance of having a clear, systematic approach to your research for successful data collection and analysis.
Summary: When engaging in research, it is important to have a plan for how you will collect and analyze data. Data collection and analysis are dependent on the study objectives and design as well as the availability of resources.

5:20 p.m.
Disseminating Your Results
Joanne Gard Marshall, FMLA, Professor, School of Information and Library Science, University of North Carolina–Chapel Hill

Description: Why do the research if you keep the results all to yourself? If you have found the research to be worthwhile and informative, then likely your colleagues in the profession will find it helpful too. Valuable results include not only the findings, but the methods you used to do the study and the challenges that you faced. This presentation will focus on strategies for disseminating your results at several different levels: in your own workplace, in your region, as well as nationally and internationally. Possibilities for disseminating the results to the health care field at large will also be discussed. Selecting the appropriate formats such as a poster, paper, roundtable, wiki, blog, email discussion list, or peer-reviewed paper will be considered. The importance of adding these activities to your curriculum vitae and tracking then for use in your own professional development plan through the Academy of Health Information Professionals will be emphasized.

Section Council

Next Steps: The Future (General Topic Session)

Cosponsored by Library Marketing SIG, New Members SIG

Minneapolis Convention Center, Room 101J, Level One

4:35 p.m.

The Twenty-first Century Health Information Professional: What Skills and Knowledge Are Required by Employers?

Karen Davies, Assistant Professor, School of Information Studies, University of Wisconsin–Milwaukee

Objective: To use analyzed professional health information vacancy details advertised on specific websites and discussion lists for six months from March 1, 2010, to August 31, 2010, to determine the competencies and skills required by health information professionals in the twenty-first century.

Methods: The person specifications of relevant job postings were downloaded from two US-based and two UK-based websites. The websites in the United States were: MLA Career Development Jobs (www.mlanet.org/jobs/) and lis-jobs.com (www.lisjobs.com/jobseekers/job-ads.asp); and in the United Kingdom: National Health Service (NHS) Jobs in England and Wales (www.jobs.nhs.uk) and jobs.ac.uk (www.jobs.ac.uk). The medical librarian discussion mailing lists, MEDLIB-L in the United States and Lis-Medical in the United Kingdom, were also monitored for job advertisements. The online advertisements provided sufficient information to enable the analysis of the job descriptions and person specifications. This enabled the core skills and knowledge required for these posts to be identified. Content analysis was utilized to analyze this information to determine patterns in the data and determine the skills required by the future librarians in the health information field. Findings from the US advertisements were compared to those from the United Kingdom.

Results: Providing instruction on information resources was the most frequently mentioned US job description requirement (78%). The ability to communicate and build effective working relationships was second (73%), and liaising with others was tied for third with answering reference questions (67%). In the United Kingdom, actively building working relationships was first (92%), followed by liaising with others (88%). The most important person specification in both countries was communicating effectively verbally and in writing (US 72% and UK 96%).

Conclusions: In the United States, an important skill was the ability to instruct or teach. This was followed by the ability to develop working relationships and then referencing (answering reference questions/expert literature searching). People skills are important with customer service orientation and team working, especially in interdisciplinary teams a frequently required person specification. This is also important in the United Kingdom, along with an emphasis placed on information technology and electronic resource knowledge.

4:51 p.m.

Applying the Knowledge Commons Concept to Health Sciences Libraries

Valerie A. Lynn, AHIP, Head Librarian, Library, Penn State University, Hazleton, PA; **Nancy I. Henry, AHIP,** Health Sciences Librarian, Paterno Library, Penn State University, University Park, PA

Objective: The purpose of the project is to provide a detailed description of knowledge commons and how health sciences libraries can embrace the concept to redesign their programs and physical spaces to meet the needs of their current and future clientele.

Methods: A literature review of academic information/learning/knowledge commons illuminated specific areas and programs that can be incorporated into health sciences libraries. Five major aspects of knowledge commons were identified: history, current locations, cost, assessment, and the future. The concept of knowledge commons evolved over a period of approximately two decades. While numerous commons exist in academic institutions, only a few health sciences libraries use this model. Cost considerations play an important part in the design of knowledge commons and encompass the planning, development, and implementation phases. Assessment is essential to determining the value of any program to the institutional mission and is directly related to the utilization of new technology and the creation of future programs. The knowledge commons is an innovative model that can revitalize health sciences libraries by giving them key roles in the strategic planning, education, and research components of their organizations.

5:07 p.m.

Going the Distance: Leveraging Social Media Tools to Engage Library Users

Emily Mazure, AHIP, Biomedical Research Liaison Librarian, Medical Center Library and Archives, Duke University, Durham, NC; **Shannon D. Jones, AHIP,** Associate Director, Research and Education; **Jennifer McDaniel, AHIP,** Education and Research Librarian; **Andrew Bain,** Library Specialist I; **Thelma Mack,** Research and Education Coordinator; Tompkins-McCaw Library for the Health Sciences, Virginia Commonwealth University–Richmond

Objective: To develop a well-defined and easily maintained online presence via social media tools such as blogs, Facebook, Flickr, and Twitter.

Methods: Our library has promoted itself using a news blog, Flickr, and Facebook with little documented success. An effort was made to review and revamp our use of online social media tools. Several factors were investigated. We reviewed currently available social media tools, investigated how these tools are being used in other libraries, and investigated the potential uses for our library. As we investigated various tools, we explored the practicality of each tool for promoting library services and methods for making the content relevant and visible to users. Based on our research, evaluation, and findings, we developed a streamlined process for managing our library's social media presence. To provide a holistic view of the library's activities, library staff with knowledge of each department's activities were involved in this project. In addition, plans were developed for evaluating and assessing the effectiveness of each tool. A scorecard, based on the project goals, was developed and used to track a variety of user interactions.

5:23 p.m.
The Next Generation of Auto Alerts
Linda M. Hartman, AHIP, Reference Librarian; **Andrea Ketchum, AHIP,** Reference Librarian; Health Sciences Library System, University of Pittsburgh, Pittsburgh, PA
Objective: With so many choices, what is the best way to stay current with the literature? Which method delivers the information soonest and most easily? Individual databases allow the user to create saved searches and auto alerts. Some use really simple syndication (RSS) feeds to send current information. Journal websites allow email alerts to be created. What role do Twitter and MyYahoo play?
Methods: This study will compare different methods of obtaining the most recent information being published. Various disciplines—such as nursing, medicine, molecular biology, and allied health—will be studied through tables of contents, author, and subject searches. Journal Citation Reports will be used to help determine which journals to follow. Top and mid-range journals will be selected and examined for authors and topics to use in the alerts. The alerts will be created and monitored in the various formats. Data recorded will be the date the alert is received, the citations received, and retrieval method (e.g., database alert, journal website alert, RSS feed). Outcome measures will take into account which citations appeared, when they appeared, and by what source.

5:39 p.m.
Rethinking Information Delivery: Using a Natural Language Processing Application for Point-of-care Data Discovery
T. Elizabeth Workman, NLM Informatics Fellow and PhD Student, Biomedical Informatics; **Joan M. Stoddart, AHIP,** Deputy Director, Spencer S. Eccles Health Sciences Library; University of Utah–Salt Lake City
Introduction: Clinicians can benefit from MEDLINE data in caring for patients; however, the limits of traditional information retrieval present difficulties in using sources such as PubMed to timely identify relevant information at the point of care. Natural language processing (NLP) applications attempt to identify and summarize such information. Could an NLP application potentially assist clinicians?
Objective: The objective of this study was to evaluate the effectiveness of Semantic MEDLINE, with a statistical algorithm called Combo, in identifying decision support information for disease prevention.
Methods: The investigators downloaded citations from PubMed. Semantic MEDLINE, with the Combo algorithm, processed the citations. Results were compared to those of an alternative baseline method and evaluated using an evidence-based reference standard to measure recall, precision, and f-score.
Results: Semantic MEDLINE with the Combo algorithm produced an average recall score of 79% in primary and secondary analyses, while the baseline method achieved an average recall of 30%. Semantic MEDLINE with the Combo algorithm achieved an average precision score of 45%, in part because it provided other potential evidence-based medicine therapies in addition to the reference standard interventions it located. The baseline method produced an average precision score of 29%. The NLP application achieved an f-score of 0.57, while the baseline achieved an f-score of 0.29.
Conclusions: Semantic MEDLINE, with the Combo algorithm, outperformed the baseline methodology. This new NLP approach to point-of-care information delivery holds promise as a decision support tool for clinicians. Health sciences libraries could implement such NLP technologies to assist the health care providers they serve.

Technical Services Section

Rethinking Technical Services

Cosponsored by OCLC SIG

Minneapolis Convention Center, Room 101I, Level One

4:35 p.m.
The Method Behind the Madness: Explaining the Philosophy Behind Resource Description and Access to Technical Services Staff and Nontechnical Librarians
Megan Curran, Head, Metadata and Content Management, Norris Medical Library, University of Southern California–Los Angeles
Objective: To give technical services librarians guidance on how to explain the big ideas of resource description and access (RDA) to the interested parties of the technical services staffers who need to implement the new rules and the nontechnical librarians who need to know what RDA can do for them.
Methods: By providing a framework of RDA with easy-to-understand examples in a fun style, librarians can take away from this presentation ideas for explaining the complex changing cataloging atmosphere of RDA to interested parties who might not have an intimate grasp on the philosophical underpinnings of the new standard and what benefits RDA can provide down the line.
Results: The presentation will provide an overview of important points to cover and accessible ways to present the material to staff and nontechnical librarians.
Conclusions: A sample thirty-minute RDA electronic presentation will be made available for interested parties after the presentation.

4:55 p.m.
The Case of E-book Management: A Multiple Access Points Approach
Jie Li, AHIP, Assistant Director, Collection Management; **Robert M. Britton,** Electronic Resources/Collection Development Librarian; **Justin C. Robertson, AHIP,** Assistant Director, Public Services; **Andrea L. Wright,** Technology Librarian; Baugh Biomedical Library, University of South Alabama–Mobile
Objective: This paper overviews health sciences electronic book databases and platforms and discusses an academic health sciences library's multiple access points approach in managing electronic books.
Methods: Medical e-books provide valuable information. However, currently there is no dedicated e-books management system, and the core clinical e-books reside on several databases using their own platforms and search engines; it is difficult for users to find and access all these resources. The health sciences library has explored multiple methods to make its e-book collection more readily accessible. A federated search engine seems an ideal solution; however, if federated search engines do not have publication title search option, this type of tool proves overall ineffective. The library has also investigated Worldcat Local for e-book search capabilities. Unfortunately, limiting to "Internet Resources" in Worldcat Local does not separate e-books and e-journals. Serials Solutions has been reviewed, and while effective for title searching, subject searching may be a problem. Employing location limits to a library's e-book collection in online catalog is yet another way to search for e-book titles. Listing e-books by subject and alphabetical order provides another access point. E-book usage statistics are also

compared, before and after implementing the multiple access points approach.
Results: The library has found there is no single method to manage the e-books, although it has explored multiple methods and approaches. The library's e-book management approaches currently include:
1. uploading all e-books in Serials Solutions for title search
2. listing e-books by subject and alphabetically
3. using a federated search engine for across the platform content searches
4. using location limits excludes everything other than e-books on online catalog
A multiple access points approach may make our users more aware of the e-book resources.
Conclusions: Librarians desire that their users are able to search e-books by individual title or all titles in a platform, but thus far, the library has found no single, simple method to accomplish these goals. For the time being, a multiple access points approach for e-book management is the best way to serve the library patrons.

5:15 p.m.
Rethinking Book Acquisitions: An Analysis of Book Usage over Time
I. Diane Cooper, AHIP, Informationist; **Karen G. Smith,** Informationist; NIH Library, National Institutes of Health, Bethesda, MD
Objective: With a decline in overall usage of our book collection, we sought to understand the characteristics of the decline. Our objectives were (1) to describe the decline fully; (2) to classify books into usage categories; and (3) to understand the characteristics of the differences, such as the subject areas of the books, book selector, secular trends, and other externalities.
Methods: We collected data over a ten-year period, from 1999–2009. A usage score was calculated using circulation and in-house data. The usage score became the dependent variable for a regression analysis that included a number of variables such as year, cost, and subject area (categorical groups). As currency is felt to be an attractive book quality, analysis was repeated on books published 2006–2010. Each librarian as selector was considered an independent variable, and data such as experience in the book subject areas and training were examined. Usage was also considered over two-year intervals to consider the impact of secular trends, library physical changes, and variables such as number of library patrons who have access to the books, library hours, and library physical changes. Analyses were both quantitative and qualitative.
Results: Our study showed that there has been a significant decline in use of our monograph collection. There was a 62% decrease in check-outs over the 10-year time frame, 1999–2009. Years 2006–2008 showed 62% of the books purchased were checked out only once, and 27% of these titles were checked out 2 or more times. In comparison, books purchased upon specific recommendation from library users had more substantial use, with 6 check-outs per book.
Conclusions: Which leads to a question: Are librarian selectors choosing what is most relevant to our users? Our survey of librarian subject selectors showed that the majority gave low priority to selecting books. This may be one factor explaining why our monographs show a decline in circulation. A need to reconsider our current model of librarians choosing books for the collection led us to conduct a pilot study on patron-driven acquisitions.

5:35 p.m.
Rethinking Collection Development: A Case Study of Purchasing a Bioinformatics Software Tool
Courtney Crummett, Bioinformatics Librarian, Bioinformatics and Biosciences Libraries, Massachusetts Institute of Technology–Cambridge
Objective: This case study describes the steps involved, from faculty request to licensing to access set up, for purchasing bioinformatics software tools and how rethinking collection development and traditional funding models can lead to robust services and relationships with users. Challenges and benefits will be discussed. A collaborative funding model employed will be described.
Methods: Massachusetts Institute of Technology (MIT) Libraries purchased a commercial bioinformatics software tool using a collaborative funding model. The library handled price negotiation, fund finding, licensing, and access set up of the tool. Almost every aspect of the acquisition process was different when compared to traditional library resources. Many internal procedures had to be rethought, and new steps were included. After one year of access, use statistics were analyzed and shared with funding partners. New funding opportunities were examined, and access renewal was completed.
Results: Institute wide access to a bioinformatics software tool was provided. Community members valued the ability to depend on the libraries to handle acquisition, licensing, price negotiation, access set up, and training. Procedures were modified to provide successful access to these new types of resources.
Conclusion: Sometimes the most valuable service you can offer is one you already do, but just in a different way. Rethinking what the library traditionally purchases and satisfying your community needs ensures a more successful collection service. Acquisition of bioinformatics tools is a successful component of the bioinformatics support program in the libraries.

Section Programs 2
Monday, May 16, 10:30 a.m.–noon

Cancer Librarians Section

Revitalize Your Message

Cosponsored by Public Health/Health Administration Section, Leadership and Management Section, Library Marketing SIG, Medical Library Education Section, Molecular Biology and Genomics SIG, New Members SIG

Minneapolis Convention Center, Room 101J, Level One

10:35 a.m.
Why Are You Here? Using an Elevator Speech to Achieve Integration into a Clinical Team
Julia Esparza, AHIP, Clinical Medical Librarian, Department of Medical Library Science, Louisiana State University Health Sciences Center–Shreveport
Description: When librarians, informationists, or information specialists are invited to join clinical teams, it is useful to develop a consistent message on their role in the team as clinical personnel often changes. By using an elevator speech to achieve this consistent message, clinical team acceptance is achieved. Deciding what is most important to emphasize in an elevator speech can be hard because, at most, an individual has twenty to thirty seconds to communicate their value. A description of the elevator speech used in two different environments will show the thought that needs to go into the creation of this dynamic marketing tool.

11:00 a.m.
Now That They Are Here: Equipping New Librarians to Deliver Their Elevator Speech!
Shannon D. Jones, AHIP, Associate Director, Research and Education, Tompkins-McCaw Library for the Health Sciences, Virginia Commonwealth University–Richmond
Purpose: The purpose of this paper is to describe the training program that our library developed to prepare newly hired librarians to become liaisons.
Setting: An urban academic health sciences library serving the schools of allied health professions, dentistry, medicine, nursing, and pharmacy.
Description: The literature suggests that it takes six to twelve months for a new employee to learn an organization's culture and their role in that organization. In the fast-paced health sciences environment, new librarians do not always have the luxury of an extended orientation period. Our constituents do not differentiate between "seasoned" and new librarians; they just want information quickly, to the point, and at the point of need. They expect us to know the answers they need. Embracing the idea that one must possess the ability to promote the library at a moment's notice, librarians must always be prepared to deliver an elevator speech regardless of the time, location, or target audience. This task is especially hard when you are still learning your job, the organization, and its people. In late 2010, we hired several new librarians within months of each other. Due to staffing shortages and competing priorities, we needed these individuals to be ready to assume liaison responsibilities in a relatively short amount of time. To shorten their orientation period, "seasoned" librarians developed a formal training program to bring these new librarians on board quickly. Our goal for the training was that our new staff members learn as much about our library's collections, its services, and their assigned liaison school as quickly as possible. This training emphasized the need to gain an understanding of the library's mission, the schools, and the programs we serve, and in-depth information about the individual schools the liaisons serve including curricular expectations, identification of the school's key players, faculty research interests, and how well the library's collection supports the discipline.

11:25 a.m.
Why Don't You Have One Yet? Creating and Using Your Elevator Speech
Lisa K. Traditi, AHIP, Department Head and Assistant Professor, University of Colorado Health Sciences Library, University of Colorado–Denver Anschutz Medical Campus, Aurora, CO
Description: Elevator speeches are a tool used in the business world for years. Some librarians have been hesitant to adapt the technique, expressing concerns that they will do something wrong or look foolish or unprofessional. The first obstacle many librarians face in using an elevator speech is in building a useful and winning one. Using an easy four-step worksheet, participants will be coached through the process of developing a concise, professional message that can be delivered in ten to thirty seconds to communicate their value. Discussion of obstacles and fears about using elevator speeches in any setting will be followed by presentation of a worksheet on the process and time to practice.

Corporate Information Services Section

Being There: The Embedded Librarian

Cosponsored by Consumer and Patient Health Information Section, Institutional Animal Care and Use SIG, Library Marketing SIG, Molecular Biology and Genomics SIG, Pharmacy and Drug Information Section

Minneapolis Convention Center, Room 101I, Level One

10:35 a.m.
Integrating Embedded Clinical Informationists into the Users' Workflows: Real-time Interactive Asking and Answering Clinical Questions
Amy E. Allison, AHIP, Clinical Informationist; **Kevin D. Bradford,** Clinical Informationist; **Anna Getselman,** Associate Director; **John Nemeth,** Clinical Informationist; Woodruff Health Sciences Center Library, Emory University, Atlanta, GA
Objective: The main objective was to build a service model that will provide a platform for formal, workflow-related transactions among clinical informationists, physicians, and residents. The overall goal was to develop pathways, enabling clinical informationists to directly contribute to the department of medicine's mission for graduate medical education within the existing activities, and create observable, traceable, and evident outcomes.
Methods: A traditional librarian position was repurposed in order to embed a clinical informationist in a clinical department at a teaching hospital. The service then expanded to include informationists at two more teaching hospitals. The clinical informationists partnered with the chief residents and attending physicians in the resident reports. While the chief residents and the attending physicians engaged residents in generating clinical questions, clinical informationists were finding answers and presenting results in real time. The questions and answers were documented in the blog format for reuse at future resident reports and in sessions with the clinical teams. As the service progressed, informationists identified new opportunities to provide services in

the existing educational and clinical workflow of the department of medicine.
Results and Conclusions: Using resources created by clinical informationists, chief residents developed learning activities to extend the educational benefit of the questions generated during resident report. In addition, faculty incorporated the clinical informationists into another educational activity, journal club presentations. This model provided residency program directors with evidence that clinical informationists added value and made a direct contribution to the educational mission of department of medicine. For clinical informationists, this model increased visibility and provided channels for meaningful dialogue with residents and clinicians.

10:51 a.m.
Collaborating in a Personalized Medicine Initiative: Provision of a Pharmacogenetics Consult Service
Tracy C. Shields, Librarian, Knowledge Management and Eskind Biomedical Library; **Mary Beth Bauer,** Pharmacogenetics Information Scientist, Knowledge Management; **Annette M. Williams,** Associate Director, Knowledge Management and Eskind Biomedical Library; Vanderbilt University Medical Center, Nashville, TN; **Michael Laposata,** Professor, Medicine and Pathology, Department of Pathology, School of Medicine, Vanderbilt University, Nashville, TN; **Nunzia B. Giuse, AHIP, FMLA,** Assistant Vice Chancellor, Knowledge Management, Director, Eskind Biomedical Library, and Professor, Department of Biomedical Informatics and Department of Medicine; Knowledge Management, and Eskind Biomedical Library, Vanderbilt University Medical Center, Nashville, TN
Objective: Strategically aligning the biomedical library's provision of best evidence efforts to the institutional vision for personalized medicine by applying expert driven answers to pharmacogenetics clinical questions.
Methods: One of Vanderbilt University Medical Center's initiatives in personalized medicine engages, under the diagnostic management team (DMT) umbrella, a group of clinical experts to interpret complex laboratory evaluations. This effort is designed to consider both a patient's phenotype and available genotype information. The Knowledge Management and Eskind Biomedical Library (KM/EBL) team embedded an information scientist and a clinical librarian to aid the DMT in the access to best evidence. Employing a well-tested workable model, the KM/EBL information specialists participate in discussions and respond with critically appraised, synthesized summaries of biomedical and pharmacogenetics literature at the time and place of clinical decision making. The library maintains an updated knowledge management database to capture the summaries and enable dynamic search execution for current literature results to facilitate reuse and currency of information across all participating members.
Results/Conclusions: With pharmacogenetics becoming one of the central elements to patient care, it is critical for librarians and information scientists to acquire the content knowledge necessary for providing the evidence-based support clinical teams need. The project described above represents an instance in which a clinical librarian and an information scientist successfully embedded with a diagnostic team to provide evidence-based support for coagulopathy test interpretations. To date, the KM/EBL information specialists have addressed ten complex clinical questions for three attending physicians and have developed dynamic searches for twenty-five topics for the overall education and knowledge of the DMT. Although not formally evaluated, the program has received positive anecdotal feedback. Perhaps the best outcome of this project is the willingness of the attending physician coordinating the clinical effort to work with the KM/EBL team to devise a framework that can be transferred to DMTs that may be established in the future.

11:07 a.m.
Embedded Clinical Medical Librarian: Assisting Patient Care on the Front Lines
Julia Esparza, AHIP, Clinical Medical Librarian; **Marianne Comegys,** Director and Chair; Department of Medical Library Science, Louisiana State University Health Sciences Center–Shreveport
Objective: In 2003, the US military embedded journalists into battalions during the invasion of Afghanistan. While the military's goal was to fight their enemy with weapons, they also knew they needed journalists involved to win the information war. Embedded librarians may join forces with researchers, clinicians, or others to fight a war to provide excellent health care. This report will discuss the cultural and social aspects of rounding with a clinical team five days a week for more than three hours a day as an embedded clinical medical librarian (CML).
Methods: A CML, embedded in an internal medicine care team at Louisiana State University Health Sciences Center–Shreveport (LSUHSC-S) for more than eighteen months, will report on the cultural and social issues in working on the front line. This will include how the CML aids clinicians in providing excellent patient care, while being aware of the social and cultural boundaries. In addition, a discussion of interactions outside the internal medicine care team will frame how the CML becomes a visible symbol for the library.
Results: Using participant observation methods, analysis was done of questions, comments, and interactions between the CML and the members of the internal medicine clinical team. The CML encountered a delayed reception among some team members. Through a positive, unobtrusive interaction, the CML gained acceptance and increased use during rounds. After attending rounds with a CML, some participants often contacted the CML to assist while on other clinical teams.
Conclusions: Acceptance may come slowly when a CML joins a clinical team. Every interaction builds confidence in the role of the CML in assisting in patient care. Libraries or librarians instituting CML programs should plan for slow acceptance. For the CML at LSUHSC-S, the personal interaction increased overall clinical requests outside clinical rounds and found clinicians outside the clinical team seeking assistance from the library for searches and training. Interaction inside and outside the internal medicine care team while rounding can stimulate team members and others to "rethink" their view of the library.

11:23 a.m.
Embedded Librarian in Two Nurse-managed Clinics: Providing Health Information and Education to Vulnerable and Underserved Patients
Clista Clanton, AHIP, Education Coordinator, Baugh Biomedical Library, University of South Alabama–Mobile
Objective: Nurse-managed health clinics serve as crucial health care access points for vulnerable and underserved patients and provide primary care, health promotion, and disease prevention services to patients of all ages, primarily those who are uninsured, underinsured, or living in poverty or members of racial and ethnic minorities. Over eighty-five of the nation's leading nursing schools operate nurse-managed health clinics, enhancing learning and practice opportunities for nursing school faculty, nursing students, and other health professions students. To support evidence-based practice and promote health literacy, a medical librarian was embedded in two nurse-managed clinics.

Methods: A librarian was embedded in two nurse-managed wellness clinics for four hours per site each week. One clinic is housed in an urban community center, and a program providing daily activities for primarily minority seniors was selected as the patient group. The second clinic is housed in an urban multiservice center for the homeless. Health screenings and assessments (blood pressure, blood glucose, cholesterol, body mass index, waist-to-height ratio) are provided to interested patients during clinic hours and scheduled health fairs. A subgroup of patients was screened for health literacy levels using the Newest Vital Sign. After assessments, the nurse refers patients to the librarian for consultation.
Results: As part of Partnering with Our Neighborhood Health Clinics, a college of nursing (CON) Health Resources and Services Administration grant-funded, nurse-managed arrangement established to provide health promotion, illness prevention, and wellness-focused care to our community, the librarian participated in initial planning for the clinics and was embedded in two clinics. Services provided have included training on health literacy issues and tools, instruction on how to locate consumer health information, access to both print and electronic consumer health materials, and on-site reference services for patients, nursing faculty, and students rotating through the clinics for a total of eight hours each week.
Conclusions: Participating in the clinics as an embedded librarian has expanded the library's role and services provided to the CON. Librarian collaboration has provided a welcomed emphasis on health literacy and education and stronger relationships with both nursing faculty and students have been forged, leading to librarian involvement with other projects and grants.

11:39 a.m.
Being There, There, and There: Using Research Methodology to Evaluate the Effectiveness of Librarians Embedded in Chart Rounds in a Multi-center Family Medicine Residency Program
Leonard Levin, AHIP, Head, Clinical and Educational Services; **Judy Nordberg,** Information Literacy Librarian; Lamar Soutter Library; **Heather-Lyn Haley,** Director, Research and Evaluation, Center for Clinical Communication and Performance Outcomes, Family Medicine and Community Health; Medical School, University of Massachusetts–Worcester
Objective: To measure the impact, analyze results, and suggest enhancements of librarian participation at multidisciplinary chart rounds at three central Massachusetts health centers affiliated with the University of Massachusetts Medical School Worcester Family Medicine residency program.
Methods: Chart rounds, led by department of family medicine and community health faculty preceptors, are held daily at each residency practice site. Family medicine residents present cases based on patients seen that day. New guidelines for chart rounds were developed by residency leadership in 2007. Based on these guidelines, librarians, behavioral health specialists, and pharmacists are invited to participate. In early 2010, residents (n=32) were invited to complete an institutional review board–approved survey asking them to evaluate their satisfaction with chart rounds. The survey consisted of 10 questions, 3 of which focused on the effectiveness of library participation. Other questions sought feedback on the value of chart rounds as an educational tool as well as questions about the participation of other specialists. This paper reports results from this survey specific to librarian involvement, analyzed using SPSS 17.0.
Results: Survey results were cross-tabulated by practice site and by postgraduate year (PGY) across all sites. Of greatest significance were satisfaction reports by PGY. Residents in the third year of training were more likely than those in earlier years to report that information provided by librarians during rounds: (A) changed their short-term and/or long-term treatment plans (chi^2=13.61, *P*=0.009); (B) helped them locate useful information more efficiently than in the past (chi^2=10.99, *P*=0.027); and (C) helped increase their knowledge about a medical or community health issue (chi^2=16.15, *P*=0.003).
Conclusions: After reviewing these results and discussing possible interpretations by site and by PGY, several changes have been made or are proposed for this and the 2011/12 academic year (e.g., participation of librarians in PGY1 practice settings such as inpatient morning report). These changes will address areas where lower satisfaction scores were reported. A specific follow-up survey targeting librarian participation is planned for 2012.

Federal Libraries Section

Rethinking Our Value: Determining Return on Investment (Part 1)

Cosponsored by Library Marketing SIG

Minneapolis Convention Center, Room 101F/G, Level One

10:35 a.m.
Calculating the Return on Investment of Health Sciences Libraries
Nancy N. Woelfl, Director, McGoogan Library of Medicine, University of Nebraska Medical Center–Omaha
Objective: To demonstrate a method for calculating a library's contribution to institutional research revenue.
Method: A model developed at the University of Illinois–Urbana-Champaign was successfully applied to demonstrate library return on investment (ROI) at the University of Nebraska Medical Center. The University of Nebraska Medical Center sought to determine whether its academic health sciences library contributed to grant income earned by research scientists and how it compared to eighteen similar libraries. Data needed to calculate ROI were obtained from an online survey of faculty and research personnel, Association of Academic Health Sciences Libraries (AAHSL), the Integrated Postsecondary Education Data System (IPEDS), the National Institutes of Health (NIH), and internal statistics.
Results: In the fiscal years from 2007 through 2009, when all sources of research grant revenue were considered, the McGoogan Library generated an average of $5.39 in research revenue for every dollar invested in its operation. ROI values for the entire cohort ranged from $2.14 to $12.50 in 2009. This presentation discusses both the methodology used and findings of the study.
Conclusions: This study contributes to a growing body of evidence that academic libraries produce positive and sustained research ROI for their parent institutions. While this study was labor intensive because it compared multiple libraries, individual health sciences libraries should be able to calculate their ROI in collaboration with research administrators at their respective institutions.

10:55 a.m.
Rethinking Our Value: Federal Libraries Value Project
Terrie R. Wheeler, Chief, Information and Education Services Branch, NIH Library, National Institutes of Health, Bethesda, MD; **Edward J. Poletti, AHIP,** Chief, Learning Resources, Health Sciences Library, Central Arkansas Veterans Healthcare System–Little Rock; **Priscilla L. Stephenson,** Chief, Library

Service, Philadelphia VA Medical Center, Philadelphia, PA; **Janet Heekin,** Research Librarian/Informationist, NIH Library, National Institutes of Health, Bethesda, MD; **Jane A. Pellegrino, AHIP,** Department Head, Library Services, Naval Medical Center Portsmouth, Portsmouth, VA; **Pamela Scott,** Medical Librarian, Tripler Army Medical Library, Tripler Army Medical Center, Tripler AMC, HI; **Mary E. Ryan,** Biomedical Librarian/Informationist, NIH Library, National Institutes of Health, Bethesda, MD; **Ann Russell Potter, AHIP,** Director, Library Program Office, Headquarters, US Army Medical Command, Fort Sam Houston, TX; **Kathy S. Parker, AHIP,** Director, Library Services, Naval Medical Center Library, Naval Medical Center, San Diego, CA; **Mary Virginia Taylor,** Librarian, Medical Library, Overton Brooks VA Medical Center, Shreveport, LA; **Nancy Terry,** Biomedical Librarian/Informationist; **Anne White-Olson,** Biomedical Librarian/Informationist; **Barbara Brandys,** Biomedical Librarian/Informationist; NIH Library, National Institutes of Health, Bethesda, MD

Objective: Health sciences librarians in federal agencies provide knowledge-based information to support their agencies' missions. They provide research support to help improve health outcomes, garner research support, and reduce costs. This study will determine if information seekers consider the information provided by their federal libraries to have positively affected their patients' care, research project development, or health care decision making.

Methods: This study is based on earlier studies of hospital library value by King, Marshall, and others. It will provide an opportunity for those who receive research assistance from health sciences libraries to evaluate the impact of that information with regard to their work. Medical libraries from 5 federal agencies will provide an online survey to their library customers receiving reference assistance during a 4-month study period, October 2010 through January 2011. The combined population will include researchers, clinical health care providers, and health administration managers from more than 200 facilities. The survey tool has been designed to capture immediate evaluations of the value of material provided in response to their specific reference questions. Results will be reported in the aggregate as well as by agency and facility.

Results: Federal library users (n=1,520; response rate=60%) valued information provided by library staff, as reflected by impact on decision making, time saved, or revenue garnered.

11:15 a.m.

Rethinking Our Value: Design and Early Results from the National Network of Libraries of Medicine (NN/LM), Middle Atlantic Region (MAR), Value Study

Joanne Gard Marshall, FMLA, Alumni Distinguished Professor, School of Information and Library Science, University of North Carolina–Chapel Hill; **Julia F. Sollenberger, FMLA,** Associate Vice President and Director, Medical Center Libraries and Technologies, University of Rochester Medical Center, Rochester, NY; **Sharon Easterby-Gannett, AHIP,** Associate Director, Medical Libraries, Lewis B. Flinn Medical Library, Christiana Care Health System, Newark, DE; **Mary Lou Klem,** Faculty Librarian, Health Sciences Library System, University of Pittsburgh Medical Center, Pittsburgh, PA; **Lynn Kasner Morgan,** Vice President, Information Technology, Associate Dean, Information Resources and Systems, and Associate Professor, Medical Education, Gustave L. and Janet W. Levy Library, Mount Sinai Medical Center, New York, NY; **Kathleen (Kate) Burr Oliver,** Associate Director, National Network of Libraries of Medicine, Middle Atlantic Region, New York University Langone Medical Center–New York; **Karen Brewer, AHIP, FMLA,** Adjunct Curator, NYU Health Sciences Library, New York University–New York; **Susan Cavanaugh,** Reference Librarian, UMDNJ Camden Campus Library, University of Medicine and Dentistry of New Jersey–Camden; **Kathel Dunn,** Consultant, Takoma Park, MD; **Sue Hunter,** Planning and Evaluation Coordinator; **Neil Romanosky,** Network Services Coordinator, National Network of Libraries of Medicine, Middle Atlantic Region; New York University Langone Medical Center–New York; **Cheryl A. Thompson,** Project Manager, Institute on Aging, University of North Carolina–Chapel Hill

Objective: The goal of the Value Study is to measure the value and impact of library and information resources, including the librarian-provided services, on the clinical decision making of physicians, residents, and nurses.

Methods: A 1992 study of physicians and residents in 15 hospitals in the Rochester, NY, area found that information provided by librarians in the form of mediated MEDLINE searches had a beneficial impact on patient-centered outcomes, such as reduction of adverse events and decreased length of stay. While retaining the critical incident technique used in the original study, the current research updates the survey by taking into account changes in the health care and technology environments, including the more independent nature of clinician searching. Seven pilot institutions tested the online survey to validate the study design and methodology. Librarian study facilitators recruited at least 1 high-level institutional "champion" to support the study, gained access to email lists or portals in their institution, and sent out the survey invitations and reminders to physicians, residents, and nurses. Additional health professional interviews are being conducted with volunteers who responded to the pilot survey. The full study will include up to 140 hospital libraries from the United States and Canada.

Results: More than 3,000 responses to the pilot survey were received, with an average response rate of 13.6%. The most common changes in patient care reported by physicians were in choice of tests (33%), choice of drugs (47%), and changes in advice given to patients (47%). Most commonly avoided adverse events were misdiagnosis (22%) and medication error (14%). Library information resources received higher importance ratings (97%) than discussion with colleagues (88%), lab tests (86%), and diagnostic imaging (79%). Library and information resources were also rated most highly by residents and nurses.

Conclusions: In patient care situations where the physicians, residents, and nurses used library information resources, the perceived value of these resources for clinical decisions and other important outcomes was found to be high.

11:35 a.m.

Information Workflow of Academic Researchers in the Changing Technological Environment: An Interview Study

Michael L. Newman, Head Librarian and Bibliographer, Falconer Biology Library, Stanford University, Stanford, CA

Objective: The study investigates the ways in which academic researchers find and use information and the ways in which they want to use information. The focus is on e-journals and on the impact of recent technological developments on workflow and information practices. This project was conducted for HighWire Press at Stanford University in order to inform future developments at HighWire in delivery of digital information.

Methods: Forty-five academic researchers in biomedicine and in other disciplines were interviewed regarding their information practices, using a questionnaire consisting of forty-five questions. Participants were selected to represent a range of research experience. Graduate students, postdoctoral scholars, clinical and nonclinical faculty, and other research staff were

interviewed. Each was queried in a sixty-minute in-person or telephone interview about technology background and access, general information practices, workflow related to reading books and journals, and the impact of technology on the researcher as an author of journal literature. Questions focused on changes in workflow in response to technological changes and as the researcher has become accustomed to using digital information resources. Each interview was recorded and later summarized in a detailed written report. The reports were analyzed to detect trends and patterns.
Results: Researchers employ an array of strategies to meet their information needs. Each strategy depends in part on the structure of the literature in the researcher's discipline. Information-seeking behaviors are also personal and highly idiosyncratic. Few interviewees have a robust and systematic information-seeking strategy involving subject, author, and cited reference alerts in abstracting and indexing databases and table of contents alerts in specific and more general journals. Most use interlibrary services extremely rarely if at all. Most interviewees indicated that their information-seeking behaviors are inadequate.
Conclusions: The growth of digital information has made literature much more accessible and tremendously increased its ease of use. However, in many cases information resources are underutilized or poorly utilized. Interviewees suggested innovative ways to enhance digital books and journals to better meet the needs of researchers. In addition, there is a continuing role for libraries in educating researchers regarding resources that are available to them.

Medical Informatics Section

Top Tech Trends V

Cosponsored by Educational Media and Technologies Section

Minneapolis Convention Center, Room 101D/E, Level One

Panelists: Eric Schnell, Associate Professor, The Ohio State University–Columbus; **Bart Ragon,** Associate Director, Library Technology Services and Development, Claude Moore Health Sciences Library, University of Virginia–Charlottesville; **Wallace McLendon,** Project Management Consulting, McLendon Consulting Group, Chapel Hill, NC; Emily G. Morton-Owens, Web Services Librarian and Assistant Curator, NYU Health Sciences Libraries, New York University–New York**; Emily J. Hurst,** Technology Coordinator, National Network of Libraries of Medicine, South Central Region, Houston Academy of Medicine-Texas Medical Center–Houston; and **Amy J. Chatfield,** Information Services Librarian, Norris Medical Library, University of Southern California–Los Angeles

Nursing and Allied Health Resources Section

Evidence-based Collection Development in the New Millennium: Doing Better What We Have Always Done Well

Cosponsored by Collection Development Section, Technical Services Section

Minneapolis Convention Center, Room 101H, Level One

10:35 a.m.
Gathering the Evidence for E-book Collection Development: A Survey of Academic and Clinical Library Users
Barbara L. Folb, Public Health Informationist; **Charles B. Wessel,** Head, Hospital Services; **Leslie J. Czechowski,** Assistant Director, Collections and Technical Services; Health Sciences Library System, University of Pittsburgh, Pittsburgh, PA
Objectives: We wanted to know which of our academic and clinical library patron groups were using e-books, how they were using them, and what factors were associated with e-book use. This information can aid in making cost-effective yet user-friendly collection development decisions, improve e-book marketing, target user education initiatives, and assess the utility of e-book discovery and access tools.
Methods: Collection development and reference librarians familiar with hospital and academic library users collaborated to produce a probability sample survey for online administration. Questions addressed awareness and use of physical and virtual library collections; e-book or print preferences by user role, task, institutional affiliation, distance from the library, and type of book; preferences for e-book features and access modes; and respondent demographics. After internal review board approval, it was tested by librarians and graduate students, revised, and finalized. The list of library remote access users' email addresses was divided by hospital or academic affiliation, and a random sample was drawn from each set. Email invitations to participate in the survey were sent to 5,292 library users. In total, 871 completed and 108 partially completed surveys were received, with all user groups represented. Descriptive and chi-square analysis was done using SPSS 17.
Results: Library e-books were used by 55.4% of respondents. Use varied by role and task: 21.3% of faculty reported assigning class readings from e-books, while 86% of interns, residents, and fellows reported using e-books to support clinical care. Respondents preferred print for textbooks and manuals; e-books for research protocols, pharmaceutical, and reference books; but indicated flexibility about format choice. They rated printing and saving e-book content as the most important functional e-book features and preferred the federated search engine to the library catalog for e-book access.
Conclusions: The heaviest users of both electronic and print books are readers in information-intensive roles, whether clinical or academic. Respondent's willingness to use alternate formats suggests libraries may selectively reduce title duplication between print and e-books and still support library user information needs. Targeted marketing, provision of user-friendly e-book search tools, and user education may increase use of e-book collections.

10:55 a.m.
An Evidence-based, Data-driven Approach to Building Useful E-book Collections
Karen S. Grigg, AHIP, Associate Director, Collection Services; **Emma Cryer,** Electronic Resources and Serials Manager, Journal Services; **Richard A. Peterson, AHIP,** Deputy Director; Medical Center Library and Archives, Duke University Medical Center, Durham, NC
Objective: This paper describes the evolving presence of e-books in the collection, discusses different licensing models, and highlights challenges inherent in evaluating purchasing decisions with an evidence-based approach. Emerging trends in the publication and selection of e-books will be discussed. Methods for further, evidence-based evaluation of purchasing decisions will be proposed, including honing metrics and involving patron feedback.
Methods: The library has begun to shift more of its monograph collection budget toward e-books due to accessibility advantages they offer and decreased use of the print collection. Thoughtfully selecting titles for developing a core collection of e-books has

created new challenges. Circulation data have traditionally been used to evaluate purchasing decisions of print monographs. This method does not translate well to e-books due to variations in vendor usage reports and the increased magnitude of usage compared to print. A more effective model for evaluating e-book purchasing decisions has been developed, based on comparing e-book usage to that of other e-books; looking at different business models; cost per use, subject, and overlap analysis; and other methods of evaluation. Models, such as those used for evaluating e-journals, are used and adapted for e-book analysis.
Results and Conclusions: Due to appropriate methods of evaluating purchasing decisions of e-books, the library spends more effectively and more responsively. The library is more accountable to stakeholders and can better distribute a limited monographs budget so that e-book titles purchased are likely to be used.

11:15 a.m.
Rethinking Collection Development Strategies: Exploring Author Publications as Evidence for Journal Subscription Decisions
Kathleen Amos, AHIP, Sewell Learning Partnership Librarian Fellow, Public Health Foundation, Washington, DC; **Alice Weber, AHIP,** Collection Development Librarian, Spencer S. Eccles Health Sciences Library; **Allyson Mower,** Scholarly Communications and Copyright Librarian; **Mary Ann James,** Electronic Resources Coordinator; J. Willard Marriott Library; **Mary E. Youngkin,** Public Services Librarian, Spencer S. Eccles Health Sciences Library; **Joanne Yaffe,** Associate Professor, College of Social Work; University of Utah–Salt Lake City
Objectives: To explore costs of institutional access to University of Utah research output by examining the correspondence between journals in which university-affiliated authors publish and journals to which the university subscribes, as well as the associated costs of journal subscriptions and interlibrary loans, and to describe how this analysis can be used to inform evidence-based collection development.
Methods: An analysis of health sciences journals in which university-affiliated authors published in 2009 was conducted. Journals were identified using the Scopus and Web of Science databases, and a random sample of journals was selected for further analysis. The university libraries' catalog and publisher websites were reviewed to determine institutional access for each journal selected. Costs for subscribed journals were calculated using library invoices and publisher information. Cost per use was estimated using journal download statistics provided by publishers. For journals to which the library did not subscribe, interlibrary loan (ILL) costs were calculated based on number of patron requests. Data related to the access and cost of university-produced publications were evaluated to guide future collection development decisions.
Results: Affiliation searches identified 1,039 journals that met the study criteria; 281 of these were analyzed. Current access to approximately 70% of these journals was available to university patrons. Subscription costs varied widely, as did usage, resulting in disparate estimates of cost per use. Approximately 75% of the journals to which the university did not subscribe were requested at least once through ILL; approximately 25% of journals to which the university did subscribe were requested. Numbers of requests per journal, and thus estimated ILL costs, again varied widely.
Conclusions: Analysis of publication access, subscription and ILL costs, and usage is an inexact science; multiple variables limit the precision of such calculations. However, these investigations can provide valuable information with which to evaluate the success of prior collection development decisions and guide future decision making. Decisions are best based not solely on the cost of resources, but also on the value offered.

11:35 a.m.
Specialty Board Reading Lists as Selection Guides
Jessica R. Page, Head, Dr. Samuel and Marian Hodesson Veterinary Medicine Library, Ohio State University–Columbus; **Kristine M. Alpi, AHIP,** Director, William Rand Kenan, Jr. Library of Veterinary Medicine, North Carolina State University–Raleigh; **Heather K. Moberly, AHIP,** Professor and Veterinary Medicine Librarian, William E. Brock Memorial Library, Oklahoma State University–Stillwater; **Vicki F. Croft, AHIP,** Head, Animal Health Library, Washington State University–Pullman
Objective: Most of the American Veterinary Medical Association (AVMA) Recognized Specialty Veterinary Organizations (RSVO) provide recommended reading lists to candidates for qualification examination preparation. We developed a methodology for gathering, verifying, and serving these lists to libraries serving practicing and teaching veterinarians. Ongoing collection evaluation using these reading lists ensures that libraries serving these patrons have materials that are essential to their continuing education.
Methods: There are twenty separate AVMA RSVOs with thirty-nine distinct specialties providing a broad swath of subject coverage of veterinary medicine as a discipline, nineteen of which provide recommended reading lists. Obtaining current reading lists and unraveling citation authority problems, we maintain a Delicious site pointing to publicly available web-mounted lists and WorldCat.org shared lists (to assist examination candidates to locate locally available items) and are developing a web presence template for all boards for all MLA Veterinary Medical Libraries Section members (the prototype is currently at North Carolina State University). Behind the scenes, this is driven by obsessively maintained Excel spreadsheets of citation data. Future plans include additional collaboration with the RSVOs to create, update, and maintain current, accurate lists and identifying additional Web 2.0 tools to help maintain current, accurate, publicly accessible reading lists.
Results and Conclusions: As a preliminary analysis, the WorldCat holdings records for 2 reading lists were reviewed. WorldCat holdings showed that only 55% of the titles on the reading list for the American College of Theriogenologists were held by at least 75% of US AVMA certified colleges of veterinary medicine. Eighty-two percent of the titles on the reading list for the American Board of Veterinary Practitioners' Feline Practice exam were held by at least 75% of US veterinary colleges. Less formally, comparison of reading lists to holdings at the authors' libraries has resulted in purchases to fill gaps. These lists can serve as valuable collection management tools for all veterinary medicine libraries.

Public Services Section

Rethinking Assessment

Cosponsored by Clinical Librarians and Evidence-Based Health Care SIG, Library Marketing SIG, Research Section, Osteopathic Libraries SIG

Minneapolis Convention Center, Room 101C, Level One

10:35 a.m.
Assessment Journey: Warning Signs, Change Indicators, New Opportunities

Barbara Abu-Zeid, Reference Librarian**; Amy E. Allison, AHIP,** Clinical Informationist; **Sandra G. Franklin, AHIP,** Director; **Anna Getselman,** Associate Director; Woodruff Health Sciences Center Library, Emory University, Atlanta, GA
Objective: The library organization embarked on the journey to diagnose the strength of what we do, identify the warning signs of roles and services becoming extinct, discover change indicators, and map out new opportunities. The main objective is to rethink the library core business, align it with the user needs, and clarify it for major library stakeholders and clientele.
Methods: The library reinvention journey started by creating a customer segmentation matrix to map user groups and uncover customer preferences and insights. The findings prompted librarians to clarify how they envision the potential utilization of the library services, as well as the information and skills acquired through these transactions. As a result, librarians identified and defined data elements to collect, developed data collection tools available at all service points, and came to an agreement on data collection procedures. One form captured information on one-to-one transactions, while the other captured data describing complex interactions, instructional sessions, and special projects. Besides demographic data, the forms captured unique elements, such as intended use of information received. After concluding a yearlong pilot data collection, the entire process was revised to improve data collection consistency and focus the level of detail for data collected.
Results: For all transactions during 2009/10 year, the 3 top intended uses of information received were to complete a course assignment (1,166), incorporate into patient care (2,210), and increase personal knowledgebase (1,374). The next 3 most common uses were to prepare to give instruction (226) and to write a manuscript or prepare a grant application (411). About 7,000 individuals attended library sessions and were provided with advanced advisory or consulting services. Of those, 553 were faculty, 361 were academic and clinical staff, 1,292 were doctoral students, 526 were medical residents and fellows, 906 were graduate students, and 735 were undergraduate students.
Conclusions: Correlation of data on users and services helped us develop new services to reach more users, even with fewer resources available, and gave us an opportunity to better describe the services' impact to stakeholders.

10:55 a.m.
Pervasive Assessment: Integrating Assessment into the Organization
Betsy Kelly, Assessment and Evaluation Liaison, National Network of Libraries of Medicine, MidContinental Region, Becker Medical Library, School of Medicine, Washington University, St. Louis, MO; **Claire Hamasu,** Associate Director, National Network of Libraries of Medicine, MidContinental Region, Spencer S. Eccles Health Sciences Library, University of Utah–Salt Lake City
Objective: Rethink assessment! More than an activity required by funders, assessment must be pervasive throughout library operations and a formal responsibility of every professional librarian. With fewer people coming into the library and more people doing their own searches, traditional metrics are decreasing. We must rethink how we collect and interpret evidence of our continued relevance and value.
Methods: When an entirely new organization whose goal is to improve access to health information was created, the need to demonstrate success was a given. There is no traffic to count, and there are no ticks to report on the reference statistics. What tools do we need, what kinds of data do we collect, and what do we do with it? The National Network of Libraries of Medicine, MidContinental Region, has experience using surveys, focus groups, interviews, funders' site visits, and staff reporting. Information comes from different groups with different needs and priorities, allowing us to determine where needs overlap and where they are unique. As we repeatedly collect and analyze data, we learn what is important and how to use it. We determine the resources and services having the greatest impact and identify and prioritize our efforts, continually demonstrating our value.
Results: Decisions are made in every project area based on evidence. The organization is more agile and able to both discontinue ineffective practices and incorporate new ones in response to the evidence. By incorporating assessment into all aspects of the region's programs, liaisons are able to offer appropriate, effective services to meet all network members' information needs.
Conclusions: Assessment is not easy: It takes effort and commitment. Assessment should be present from the beginning. Plan for data collection; think about kinds of data and their source. Work continuously to ensure all parties are knowledgeable and comfortable with the process and the rationale. Make it part of the culture and "owned" by everyone. Do not just collect data and stick it in a drawer (or save it in a file). It has to be reviewed, analyzed, and summarized so you can take action, improve services, and show value.

11:15 a.m.
Using Information Management Competencies Drives Objectives and Evaluation
Marie T. Ascher, AHIP, Associate Director, User Support, Education, and Research; **Diana J. Cunningham, AHIP,** Associate Dean and Director; Health Sciences Library, New York Medical College–Valhalla
Objective: The New York Medical College Health Sciences Library has long sought meaningful integration of pertinent information management competencies into the curriculum of the three schools it serves. Recently a list of information management competencies was drafted, and efforts are underway to apply these competencies into the curriculum and evaluate the success of students and residents in meeting them. The competencies provide a framework for setting objectives and evaluation. This paper describes the process, draft competencies, testing, and our relevant instruction and evaluation efforts. Questions addressed include the following: What do our students and residents need to be able to do? Who decides? How to set objectives to meet them? How to teach them? And how to assess outcomes?
Methods: Formative evaluation. Draft competencies were presented to select faculty, faculty library committee, and curriculum committee chairs, with plans to pilot in three academic programs. The curricula of the programs were analyzed for appropriate application of competencies. The digital curriculum for all three schools were analyzed, and information management competencies were added as units or "courses" in Moodle and the Digital Curriculum database.
Results: All librarians involved in the library's instructional program participated in the drafting of the competencies document and related educational objectives, exercises, and evaluation methods. Instruction and evaluation are variable, depending on the program needs and requirements: self-assessment, pretest, assignment, posttest, and librarian assessment of an individual's competency attainment. Internal accountability measures were also developed.
Conclusions: The development of a set of institutional core information management competencies has allowed the library to begin new conversations about new roles and integrate instruction and evaluation of these skills into the curriculum of the college's academic programs. Liaisons to the various academic departments view this document as a tool that can

be used to promote instruction ideas and to structure their own exercises and evaluations related to those activities.

11:35 a.m.
Assessing Reference Services Using the Reference Effort Assessment Data (READ) Scale
Penny Coppernoll-Blach, AHIP, Reference Coordinator; **Dominique Turnbow,** Undergraduate Services Librarian; Biomedical Library, University of California–San Diego, La Jolla, CA
Objective: To assess the reference services at the Biomedical Library, University of California–San Diego, by using the Reference Effort Assessment Data (READ) Scale. Gathering statistics with this new six-point scale will give us more complete data and will help us to shape the use of our staff and resources in more effective ways.
Methods: The READ Scale was implemented to record the statistics kept at our three service points and off-desk. The six READ categories allow recording the effort of each reference encounter, by taking into consideration the time spent and the expertise needed, rather than just the type of question (i.e., directional, informational, or search). A task force was created to become familiar with the scale and to train staff in order to normalize its use across our 3 service points. Revised forms were created to track the statistics, the standard READ cheat sheets were modified with more descriptions and examples specific to our library, and a process was developed to document the actual questions being assigned at level 4 or higher. These statistics will be analyzed, with the goal of gaining more insight into how best to restructure and utilize our shrinking staff and resources.
Results: The presentation will report on the data collected at our service desks during winter and spring quarters. Preliminary results show a low occurrence of level 4–6 questions.

Relevant Issues Section

Rethinking Health Information: Creating Outreach Initiatives, Projects, and Programs to Reach Special Populations

Cosponsored by African American Medical Librarians Alliance SIG; Lesbian, Gay, Bisexual, and Transgendered Health Science Librarians SIG

Minneapolis Convention Center, Room 101B, Level One

10:35 a.m.
TU Teen Health: An Outreach Pilot Project at Tuskegee University
Margaret K. Alexander, Librarian, Veterinary Medical Library, Tuskegee University, Tuskegee, AL

10:55 a.m.
Informed Innovations in Community Outreach: Analyzing Data to Effectively Deliver Health Information
Brenda M. Linares, Finance Manager and Administrative Librarian, Louis Calder Memorial Library, Miller School of Medicine, University of Miami, Miami, FL

11:15 a.m.
Touch Technology Multilingual Health Information Project
Lisa Massengale, Assistant Information Services Librarian, Library of the Health Sciences, University of Illinois–Chicago

11:35 a.m.
General and Environmental Health Education Outreach to K–12 Students and Teachers
Alla Keselman, Specialized Information Services, National Library of Medicine, Bethesda, MD

Veterinary Medical Libraries Section

One Medicine/One Health: Interdisciplinary Collaborations

Cosponsored by Institutional Animal Care and Use SIG, Molecular Biology and Genomics SIG, Pharmacy and Drug Information Section

Minneapolis Convention Center, Room 101A, Level One

10:35 a.m.
Partnering with Student Health Services to Provide Quality Zoonotic Disease Prevention Information
Kristine M. Alpi, AHIP, Director; **Carol E. Vreeland, AHIP,** Associate Director; William Rand Kenan, Jr. Library of Veterinary Medicine, North Carolina State University–Raleigh; **Rhea M. Hebert,** Adjunct Librarian, Library, Brevard Community College, Cocoa, FL
Objective: Libraries provide high-quality occupational health information. University student health focuses on undergraduates with scarce attention to adult professional students' needs. Assessing prevention and treatment information about diseases transmissible from animals to humans available to veterinary students from student health services could justify partnerships between libraries and student health to improve the health of these students.
Methods: Content analysis of websites of 42 veterinary schools coordinated by the Association of American Veterinary Medical Colleges (28 in US, 14 international) for zoonotic disease prevention and/or treatment services and information resources provided by student health or occupational health services. Comparative content analysis of websites of student health services (SHS) at universities with schools of veterinary medicine to see whether zoonotic diseases prevention or treatment information or any services specifically for veterinary students are mentioned. Email survey of corresponding academic veterinary librarians asked about available zoonotic disease resources and any outreach with student health services. Each university-based student health service was asked to complete an online survey about services offered to veterinary students and use of library-provided or free online zoonotic disease resources.
Results: Websites of 21 (75%) of the 28 US veterinary colleges mention student health and rabies vaccination. Fewer than half of the sites address strategies for preventing zoonotic diseases, obtaining protective equipment, or dealing with the stress of euthanasia on veterinary personnel. Student health websites provide scant veterinary student health information. While 15 (54%) of the SHS sites address rabies, only 8 (29%) mention other animal-related health issues. Nineteen (68%) of SHS websites linked to the Centers for Disease Control and Prevention (CDC). All SHS staff surveyed (33% response rate) reported using CDC. Merck Veterinary Manual was linked from 14 veterinary websites, mostly from reading lists and library guides. Although 4 (29%) of the 14 librarian respondents had reached out to SHS, none of the contacts related to zoonotic disease.
Conclusions: SHS serving students who work with animals could address zoonotic disease prevention with support from librarians who introduce them to relevant resources.

10:55 a.m.

Identifying and Analyzing Interdisciplinary and Interinstitutional Research from United States Veterinary Colleges

Gregory K. Youngen, Veterinary Medicine Librarian, Veterinary Medicine Library, University of Illinois–Urbana-Champaign; **Jessica R. Page,** Head, Dr. Samuel and Marian Hodesson Veterinary Medicine Library, Ohio State University–Columbus; **Heather K. Moberly, AHIP,** Professor and Veterinary Medicine Librarian, William E. Brock Memorial Library, Oklahoma State University–Stillwater; **Barbara Hamel,** Information Services Librarian, Steenbock Library, University of Wisconsin–Madison

Objective: Veterinary medical research traditionally focuses on animal health and wellness; however, research activities at US accredited veterinary colleges extend far beyond these traditional areas. An analysis of peer-reviewed articles indicates an increasing interest in human and public health issues, robust interdisciplinary collaboration, and a broad array of nontraditional research interests and publications.

Methods: The first phase of this study focused on six midwestern veterinary colleges. It identified nontraditional subject areas and trends in research using bibliographic tools available in PubMed, ISI's Web of Knowledge, and Scopus. After presenting the initial data at the United States Agricultural Information Network conference, USAIN 2010, the study expanded by adding three additional researchers and covering all twenty-eight accredited veterinary schools in the United States. This phase is limited to ISI's Web of Knowledge in an attempt to create an initially achievable task. Both phases illustrate how using textual analysis tools and visualizations, such as word clouds, can assist with clarifying these data through illustration.

Results: The study identifies journals outside the traditional veterinary medical literature where veterinary faculty publish and research areas outside veterinary medicine in which veterinary faculty are publishing, as well as institutional collaborations and overlap.

Conclusions: This information can assist veterinary medicine librarians in developing collections that fully support the interdisciplinary research conducted by their patrons. Furthermore, data on areas of research can help veterinary medical researchers locate collaborators across disciplines and across institutions.

11:15 a.m.

The Interdisciplinary Village

Linda M. Hartman, AHIP, Reference Librarian, Health Sciences Library System, University of Pittsburgh, Pittsburgh, PA

Objective: As the body of clinical knowledge grows, the clinician needs to rely on specialists to care for the patient. It takes an interdisciplinary village to provide the necessary care. For this village to work effectively, each member needs to have an understanding and appreciation of the other members' roles. How are the educational and professional experiences relayed to other professions?

Methods: This paper will look at interdisciplinary educational programs currently in place and how they are similar and different in their approaches to teaching medical professionals about each other's professions. There are also many personal narratives in the form of books, blogs, and websites that discuss what it is like to be, among others, a surgeon, pharmacist, resident, or patient. Librarians can find and promote these resources through library newsletters, displays, and book clubs. A discussion of the various ways to incorporate these into an interdisciplinary curriculum will be included.

11:35 a.m.

Discovering Our Research Impact: A Bibliometric Exploration of What Journals and Disciplines Are Citing Our Work

Michael A. Coffman, Reference Librarian, Reference; **Mark E. Hopkins,** Library Technology Manager, Reference; Robert M. Bird Library, University of Oklahoma Health Sciences Center–Oklahoma City

Objective: To undertake a citation analysis of articles published in medical library journals between January 2007 and December 2008 that will categorize and quantify the journals and representative subject disciplines that are citing medical library research. This study will provide information on what research fields are connected with our own research interests, as well as a snapshot in time of how our own discipline is connected with worldwide research as a whole.

Methods: First, Ulrich's web will be used to determine a set of medical library journals for inclusion in the study. To be considered for inclusion, each journal must be included in any of the Web of Science databases as well as MEDLINE. Articles published in selected journals will be captured using Web of Science databases: Science Citation Index, Arts and Humanities Index, and Social Science Indexes. Web of Science will then be used to create a report of citations to these articles prior to December 2009. Web of Science and Journal Citation Reports will then be used to determine subject categories for the citing articles' journals.

Results: Nine journals were selected for inclusion to this study between January 2007 and December 2008. Overall, these journals represented 1,119 articles recorded in Web of Science databases. These articles have been cited 3,319 times. Citing articles represented over 1,000 unique journals and more than 100 subject areas. Major subject areas citing medical library journals include nursing, medicine, health policy, computer science, biology, pharmacology & pharmacy, and more.

Conclusions: This is a small, preliminary study on the impact of medical library journal literature. Medical library journal literature has an impact on a number of journals and subject areas. These findings show that the medical library journal literature's broad impact on differing subject areas is encouraging for the utility of medical library research. Future research will examine what other studies are being cited, by subject areas, illuminating the impact medical library literature is having, as well as identify areas for future collaboration.

Section Programs 3
Monday, May 16, 3:00 p.m.–4:30 p.m.

Educational Media and Technologies Section

Technology and Library Instruction

Cosponsored by Libraries in Curriculum SIG

Minneapolis Convention Center, Room 101F/G, Level One

3:05 p.m.

An Analysis of Academic Health Sciences Library Videos Available through YouTube

Thane Chambers, Research Librarian, John W. Scott Health Sciences Library, University of Alberta–Edmonton, Canada

Objective: YouTube is a popular video-hosting website. Academic libraries use this website to interact with, engage, and teach students. This paper analyzes videos uploaded to YouTube by academic health sciences libraries. This study addresses the following questions: how are academic libraries using social media websites to engage and teach students? What are the potential learning outcomes available from libraries on YouTube? And how do students perceive and learn from these videos?

Methods: Online videos posted by academic health sciences libraries were analyzed. The videos were categorized into the following areas: marketing, instruction, entertainment, and presentations. Videos created for instruction were classified with Bloom's revised taxonomy of educational objectives. A selection of three videos that focus on database searching were presented to health sciences undergraduate students who used a think-aloud approach to provide feedback about the usability, appropriateness, and relevance of each of the videos. Students were asked to complete a specific task taught by one of the videos.

Results: Three hundred seventy-seven videos uploaded by academic health sciences libraries from across North America were analyzed. Sixty-eight percent were instructional videos. The vast majority of these videos were categorized as remembering, which is a lower-order category in Bloom's revised taxonomy. Higher level categories (creating, evaluating, or analyzing) were not the learning outcomes of any of the videos. Instructional design tended to involve showing viewers how to perform tasks rather than explaining concepts. None of the videos included active learning components or focused on developing critical thinking skills. Data analysis of the think-aloud sessions with undergraduate students is ongoing and will be shared at the presentation.

Conclusions: Data gathered from this study provide librarians with evidence about YouTube as a learning environment and will lead to criteria for building learning objects and providing instruction through YouTube.

3:25 p.m.

Reaching Students on Their Turf: Course Management Software Trends in Health Sciences Information Literacy

Tierney Lyons, Reference Librarian, Penn State Worthington Scranton, Penn State University, Dunmore, PA; **Stefanie Warlick,** Health and Human Services Librarian, Libraries and Educational Technologies, James Madison University, Harrisonburg, VA

Objective: Learning environment trends show an increasing amount of library resources and course material available only electronically. With academic institutions' extensive adoption of course management software (CMS), libraries are increasingly making their content available through this delivery method. This study identifies and compares libraries' CMS content and discusses the technology's existing limitations and what point-of-need content works well in this environment.

Methods: Successful information literacy programs and institutions working in CMS systems were identified through academic library websites, a literature review, and an internal review board–approved online survey. Academic libraries with nursing, allied health, or health sciences programs were targeted for the review of the literature and survey participant recruitment. Trends and issues found in their literature were utilized to develop the survey categories and questions. The survey allowed for collection of information on programs not reported in the literature. Collected data were analyzed to determine how institutions are incorporating CMS into the information literacy programs. Analysis focused on factors such as user friendliness and breadth of tools used, as well as pairing of electronic content with traditional instruction methods.

Results: The results for this study will be submitted at a later date.

Conclusions: The conclusion for this study will be submitted at a later date.

3:45 p.m.

Librarians' Involvement in a Course Management Tool and an Evolving Instructional Design Role

Aileen McCrillis, Research Librarian, Health Sciences Libraries, School of Medicine, New York University–New York; **Jamie M. Graham,** Librarian, Library and Information Commons, Seattle Children's, Seattle, WA; **Karen L. Hanson,** Digital Projects Librarian; **Stephen Maher,** Collection Development Librarian; **Richard McGowan,** Research Librarian; **Karen Yacobucci,** Content Management Librarian; **Dorice Vieira,** Information and Reference Services Librarian; **Emily G. Morton-Owens,** Assistant Curator and Web Services Librarian; Health Sciences Libraries, New York University–New York

Objective: This presentation discusses how requests from medical school teaching faculty steadily increased the amount and sophistication of librarian involvement with instructional technology. Starting with smaller requests to recommend resources and gather multimedia materials, the project led to librarians developing interactive learning modules using Learning Activity Management System (LAMS) on a variety of topics that are integrated into the school's open-source (Sakai) course management system. These projects have expanded the librarians' involvement in the curriculum.

Methods: The medical school is assertively redesigning its curriculum and capitalizing on its open-source course management system. Meanwhile, the duties of curriculum librarian have been dispersed among many library faculty, and there is less face-to-face interaction with students. The library is using technology to deepen its involvement with curriculum and the faculty, while interfacing with students in new ways. The library's involvement began with building custom course web pages and providing links to online resources as requested by faculty. By 2009, it expanded to collections of multimedia resources and requests to build freestanding multimedia modules about copyright, research methods, and research ethics. Librarians' curriculum instruction now takes place online and is more focused.

Results: Librarians working with the division of educational informatics (DEI) established a protocol for handling requests, including a project proposal form and a shared list of resources for locating education materials. Relevant materials are delivered to teaching faculty for consideration via Delicious. Eventually librarians were asked to create teaching modules on their own.

Librarians collaborated on a series of four modules to be used in the emergency medicine department research elective for residents as well as a module about copyright in the online environment intended for faculty. The modules were created using LAMS featuring videos, images, and interactive quizzes. Some modules coauthored by librarians have been submitted to MedEd portal.
Conclusions: New educational technologies have enabled the library to contribute to the curriculum in new and innovative ways and have strengthened relationships with teaching faculty and DEI. The library's involvement has been well received by teaching faculty and will continue.

4:05 p.m.
Reaching the Masses: Multimedia Biomedical Instruction at the Point of Need
Carrie L. Iwema, Information Specialist, Molecular Biology; **Ansuman Chattopadhyay,** Head, Molecular Biology Information Service; Health Sciences Library System, University of Pittsburgh, Pittsburgh, PA
Purpose: Our user base of scientists, students, clinicians, and other health care practitioners requires access to a multitude of resources to do their jobs successfully. Furthermore, they also require numerous methods for learning about and how to use these resources. Thus, we are continually exploring technology-based instructional tools to fulfill the varying information needs of our users.
Description: We provide a molecular biology information service that includes consultations, distribution of bioinformatics software, workshops, and a comprehensive website. We educate our users about bioinformatics resources in-person, both individually and during our classes. However, many users, based on time constraints or personal preference, are requesting other means of instruction. We already post workshop slides, tutorials, frequently asked questions, and a specialized search tool on our website. We are starting to use video resources such as Jing, Camtasia, and WebEx for screencasts, online meetings, and recorded sessions, as well as Twitter for brief announcements and informative links. These options offer instruction at the point of need rather than require a physical interaction, while still explicating often complicated databases and tools. Our plan is to assess these different methods to determine whether we are indeed meeting user information needs.

History of the Health Sciences Section

Remember, Rethink, and Reinvent: Using History to Show the Way

Minneapolis Convention Center, Room 101D/E, Level One

3:05 p.m.
Vesalius, *De Humani Corporis Fabrica,* and Today's Evidence-based Medicine
Robert Cagna, AHIP, Library Director, Health Sciences Center Library, Charleston Division, West Virginia University–Charleston
Description: This presentation is a historical look at Andreas Vesalius's life, his best-known book, and his relation to modern evidence-based medical practice. Vesalius is known as the founder of modern human anatomy. Traditionally, he has been beloved by medical librarians because of his groundbreaking book, *De Humani Corporis Fabrica.* He also was very progressive in terms of his scientific methods, investigative techniques, and medical practices, which make him an important figure to know about today in the era of evidence-based medicine.
Conclusion: Andreas Vesalius helped define medical science for the Renaissance and beyond.

3:21 p.m.
Diagnostic Related Groups Demand Informed Consumers
Helen-Ann B. Epstein, AHIP, Head, Education and Outreach, Weill Cornell Medical Library; **Rhonda J. Allard,** Manager, Myra Mahon Patient Resource Center; Weill Cornell Medical College, New York, NY
Aim: To illustrate how the introduction of diagnostic related groups (DRGs) demanded more informed consumers.
Background: Medicare spending doubled every five years. The 1972 Social Security amendments began setting limits on Medicare reimbursement. DRGs were developed to categorize hospital products and the costs for each one. The concept of prospective payment for the products of each DRG became a method of controlling runaway hospital costs. It was argued that, under this reimbursement plan, hospitals would become more frugal and physicians would adjust their practice methods. Greater responsibility to learn about their health maintenance now fell to patients. Consumer research demonstrates that when faced with an uncertain decision, consumers adopt simplifying strategies that may lead to suboptimal choices. Hospitals opened consumer health information centers to provide in-person assistance and quality information. Consumer health librarians now have a new role to suggest quality information links to the electronic patient record.
Objectives and Method: This historical overview will highlight the creation of preferred provider options and DRGs, and the reason for the inception and growth of the consumer health education movement. It will also suggest the future of consumer health information with ways to link consumer health information to the electronic patient record.
Discussion: In the 1970s, government was influencing delivery of patient care. In the 1980s, librarians started to ask who should be responsible for meeting consumers' health information needs. One answer was to open a consumer health information library. The National Library of Medicine (NLM) had a campaign encouraging doctors to write "information prescriptions" that patients would bring to the library. Today, the patient visits in person or virtually. The patient may meet the librarian on bedside rounds or in the clinic. Soon MedlinePlus will be linked to the patient electronic record.
Conclusion: Government influence gave rise to the need for a more informed health consumer. Consumer health information centers opened with physical and virtual collections. Going forward MedlinePlus will "pop up" when a patient moves a computer mouse over sections of their electronic patient records. Pew Research Center reports eight in ten Internet users have looked for health information. Consumer health information significantly impacts their care.

3:37 p.m.
Rethinking Instruction: The Historical Relationship Between Library Instruction and Medical Education
Rebecca S. Graves, AHIP, Educational Services Librarian, J. Otto Lottes Health Sciences Library, University of Missouri–Columbia
Objective: For nearly 100 years, health sciences librarians have been reaching out to their clientele through library instruction. Sessions have ranged from one-time lectures to full-credit courses in the curriculum; topics have ranged from the use of library tools to thinking critically about the creation and management of information. Yet how successful has library instruction been? Has

success been based on librarians championing library instruction, or has success been based on outside influences?
Methods: This paper will explore the intertwined history of library instruction and medical education, looking specifically at the importance of problem-based learning, end-user searching, evidence-based medicine, and information literacy as trends affecting library instruction. By knowing the importance of outside influences on library programming, librarians will be able to use current and future trends to market their services and serve the needs of their clientele.

3:53 p.m.
How Not To Be a Crash Test Dummy: Lessons in Survival from the Rust Belt
Nadia J. Lalla, Coordinator, Collections and Information Services; **Scott Hanley,** Information Services Librarian; Taubman Health Sciences Library, University of Michigan–Ann Arbor
Background: Strong historical evidence indicates that library collections and staffing are negatively impacted during profound economic downturns. Given that some libraries survive and flourish during these difficulties, extrapolated lessons may be applied to the current situation of an academic health sciences library.
Objectives: (1) To describe the historical impact of the automotive industry on academic health sciences libraries' services and resources during two severe economic downturns. (2) To extract from these historical events lessons that might be applied in a current academic health sciences library grappling with funding uncertainties.
Methods: Two macroenvironment scans of severe economic downturns (the Great Depression and the oil crisis of the 1970s) and one of the current recession will be undertaken including data gathering on demographics, economic forecast, emerging technologies, social and educational trends, and political landscapes. In addition, using academic health sciences libraries and the automotive industry as the foci, a narrative review of published materials (scholarly and news articles, conference proceedings and abstracts, other secondary sources) and unpublished archival documents (fiduciary and policy statements, annual reports, internal correspondence, external correspondence with publishers and major library associations, other primary source documents) associated with an academic institution will be conducted for two historical economic periods.
Results: The macroenvironment scans will reveal common issues: space constraints, spiraling serial costs, demands for searching expertise, new technologies, and global health initiatives. The narrative review will identify immediate and long-term consequences and themes. Cumulative analysis of the historical data is expected to show how academic health sciences libraries practiced fiscal restraint via staff reductions, serial cancellations, diminished collection growth, restricted services, and abandoned facility projects. Despite dire economic circumstances, these libraries implemented innovative solutions that expanded their supportive roles in research, education, and the provision of health care services.
Conclusions: Although libraries can be negatively impacted during extreme economic periods, growth in innovative health sciences libraries' services and quality resources for its primary user populations can occur. It is possible for these libraries to emerge from economic crisis in stronger positions to collaborate with researchers, educators, health care providers, and the communities served by these groups

4:09 p.m.
Rethinking Parasitology Research: Reinventing the *Index Catalogue of Medical and Veterinary Zoology*
Heather K. Moberly, AHIP, Professor and Veterinary Medicine Librarian, William E. Brock Memorial Library, Oklahoma State University–Stillwater; **Esther Carrigan, AHIP,** Associate Dean and Director; **Derek Halling,** Assistant Professor and Onsite Services Librarian; **Nancy Burford, AHIP,** Associate Professor and Onsite Resources Librarian; **Gail Clement,** Outreach Librarian; Medical Sciences Library, Texas A&M University–College Station; **Trenton Boyd, AHIP, FMLA,** Head, Zalk Veterinary Medical Library, University of Missouri–Columbia; **Sidney A. Ewing,** Professor Emeritus, Veterinary Parasitology, Veterinary Pathobiology, Oklahoma State University–Stillwater
Objective: The *Index Catalogue of Medical and Veterinary Zoology* is a historical compendium of parasitological literature that is still of importance to today's researchers in accessing literature related to reemerging diseases that are historically and presently challenging, such as schistosomiasis and malaria. Our objective is to provide freely available, stable, high-quality electronic access to this unique print resource.
Methods: This series, begun in 1892, was created by Charles Wardell Stiles and Albert Hassall, parasitologists working for the Bureau of Animal Industry in the US Department of Agriculture. It was suspended in 1982 after more than 100 separate issues and more than 20,000 pages. In 2008, librarians at Texas A&M University and Oklahoma State University received a Library Technology Award of $20,000 from the National Library of Medicine through the South Central Region of the National Network of Libraries of Medicine to digitize and preserve this publication. The PDF/a files are full-text searchable, described with standard metadata, and uploaded on both university websites through their respective institutional repositories. High quality TIFF files were created, and copies of the TIFFs will be retained by both institutions to be used as source files for future advances in digital user files.
Results: This project resulted in each university adding the Index Catalogue of Medical and Veterinary Zoology (ICVMZ) PDF/a files as a collection in their institutional repositories (IR) to provide freely available, stable access for researchers worldwide. The institutions use different IR products and provide researchers with not only two access points, but also a choice of search mechanism and delivery options.
Conclusions: To set the ICVMZ into historical context, we added an overarching web presence. It links to each university full-text presence and to other full-text ICVMZ issues that have become available online since the inception of this project. Most notable among these are issues at Google Books and archive.org. Preliminary feedback from both graduate students and established researchers at the Conference of Research Workers in Animal Diseases in December 2010 indicates that this project and access to this material is both welcomed and necessary.

International Cooperation Section

Collaborating across Borders to Improve Health Information Delivery

Cosponsored by Public Health/Health Administration Section

Minneapolis Convention Center, Room 101I, Level One

3:05 p.m.
A Solution in Sight: South-South and South-North Collaboration to Improve Access to the World's Ophthalmic Information
Pamela C. Sieving, AHIP, Biomedical Librarian/Informationist, NIH Library, National Institutes of Health, Bethesda, MD; **Bette Anton,** Head Librarian, Fong Optometry and Health Sciences

Library, University of California–Berkeley; **Suzanne S. Gilbert,** Director, Center for Innovation in Eye Care, Seva Foundation, Berkeley, CA
Objective: To enhance the ability of staff of eight developing-country ophthalmic resource centers (RCs) to make medical, scientific, and technical information available to health care workers in order to improve training, research, and care locally, regionally, and globally; to reduce isolation of center staff by creating an international network for mentoring, training, and problem solving.
Methods: The Association of Vision Science Librarians (AVSL), partnering with the Seva Foundation, is strengthening ophthalmic RCs at eye care institutions in developing countries. This project builds a learning community among the participating RC staff and their advisors and in the international vision librarian network. The collaboration uses teleconferences, videoconferences, working group meetings online and in person, and visits by experienced RC librarians and advisors to implement the strategic plans developed by each resource center. Our goals are to support development of the RCs and increase the knowledge and skills of center staff. This will enable them to increase effectiveness of medical care, education, and research at their institutions; provide education and training for their institutions' staff and trainees in the use of online and print resources; and work with them to understand evidence-based health care principles and resources.
Results: An initial conference of veteran and newer members of AVSL from both south and north, other RC staff, and consultants from foundations, Google, and international centers promoting eye care in developing countries was followed by a second, organized by an RC librarian for RC librarians in Nepal. Descriptions of the program have been presented at international ophthalmology and medical librarianship conferences. A mentorship relationship has resulted in a paper in a MEDLINE-indexed ophthalmology journal. Several North America–based AVSL members are beginning mentoring relationships with RC librarians. But funding is difficult: The work is supported by funds squeezed from already-tight library budgets, and plans for additional meetings are tentative.
Conclusions: Collaborations between south and north do lead directly to those between south and south. The challenges are to demonstrate effectiveness of the collaborations, and of the resource centers, and to secure funding to continue to improve and expand the network.

3:25 p.m.
The Frontera Collaboration: Promoting Evidence-based Practice in the US-Mexico Border Region
Keith Cogdill, AHIP, Director, South Texas Regional Information Services, Health Science Center, University of Texas–San Antonio; **Kathleen Carter,** Librarian; **Graciela Reyna,** Assistant Director; Ramirez Library, University of Texas Health Science Center–San Antonio; **Lorely Ambriz,** Knowledge Management and Communication Advisor, Knowledge Management and Communication Center, Pan American Health Organization US-Mexico Border Office, El Paso, TX; **Barbara Nail-Chiwetalu,** Distance Services Coordinator; **Patricia Bradley, AHIP,** Native Services Librarian, Health Sciences Library and Informatics Center, The University of New Mexico–Albuquerque; **Brooke Billman, AHIP,** AZHIN Librarian; **Yamila El-Khayat,** Interim Outreach Services Librarian; **Annabelle Nunez,** Information Services Librarian; **Jeanette Ryan,** Deputy Director; Arizona Health Sciences Library, University of Arizona–Tucson; **Brett Kirkpatrick,** Associate Vice President, Academic Resources, and Director, Libraries; **Julie Trumble,** Head, Reference and Educational Services; Moody Medical Library, University of Texas Medical Branch–Galveston
Objective: This presentation provides an update on the Frontera Collaboration, a partnership of health sciences libraries in US-Mexico border states. The goal of the Frontera Collaboration is to increase cooperative efforts among health sciences libraries aimed at improving clinical care and public health in the border region.
Methods: In their initial eighteen months, the Frontera Collaboration libraries focused on three specific objectives: (1) conduct assessments of needs and resources related to promoting evidence-based practice in the border region; (2) perform a limited number of outreach activities aimed at border clinicians and public health personnel, including conference exhibits and pilot training events that rely on collaboratively developed instructional resources; and (3) develop a strategic plan for continued collaboration in the 2011–2014 timeframe. Biweekly teleconferences and annual in-person meetings have enabled Frontera library representatives to work together on collaborative tasks and to discuss challenges and opportunities in their local border communities.
Results: Through their participation in the Frontera Collaboration, health sciences libraries serving the border region have made several accomplishments in an eighteen-month timeframe. One of their principal accomplishments was an assessment of learning needs related to evidence-based practice among convenience samples of clinicians and public health personnel. This assessment explored perceptions of evidence-based practice, and findings suggest a disparity between self-reported reliance on evidence-based practice and use of information resources. The Frontera Collaboration libraries have also developed asset maps of information resources and services available to clinicians and public health personnel in the border region. This collaboration has also resulted in the development of training materials that have been pilot-tested in a limited number of outreach events.
Conclusions: The experience of working together as part of the Frontera Collaboration's initial period of performance has laid a foundation for ongoing collaborative efforts among health sciences libraries serving the border region.

3:45 p.m.
Supporting Evidence-based Medicine Training and Implementation in Haiti
Emily J. Vardell, Director, Reference, Education, and Community Engagement, Louis Calder Memorial Library, School of Medicine, University of Miami Miller, Miami, FL
Description: Due to both a long-standing presence and geographic proximity, the University of Miami clinicians were some of the first responders in Haiti following the January 2010 earthquake. To support the immediate and varied needs of these responders, the Calder librarians created a website gathering both freely available and commercially licensed material most relevant to the first responders and donated two boxes of core medical textbooks. The Calder Library then received an Express Disaster Recovery Award from the National Network of Libraries of Medicine (NN/LM), Southeastern/Atlantic Regional Library, to bring laptops and other technical support to the University of Miami medical tent and the long-standing training of Haitian physicians and nurses. This award led to an invitation to join a University of Miami field visit to Haiti to observe firsthand the work there and implement a needs assessment of the University of Miami affiliates onsite as well as the Haitian medical students and nurses in training. This presentation will also discuss the Emergency Access Initiative and its first implementation in Haiti, in addition to the planning process, necessary troubleshooting,

and the challenges of working in both a disaster setting and a developing country.

4:05 p.m.
A Passage to Armenia: Medical Librarians as International Fulbright Specialists
Charles J. Greenberg, Coordinator, Curriculum and Research Support, Program Development and Research, Cushing/Whitney Medical Library, Yale University, New Haven, CT
Description: A Yerevan State Medical University dean and surgeon issued the formal invitation from his school. Prior to curriculum development, Armenian medical librarians received an online survey to assess their digital library competence. An original instructional workbook was used with two student tracks, one using an Armenian translator and the other competent with English. Besides two weeks of scheduled training, a variety of international exchange and cultural activities took place.

Leadership and Management Section

Rethinking Libraries in Hard Times

Cosponsored by Corporate Information Services Section, History of the Health Sciences Section, Hospital Libraries Section, Institutional Animal Care and Use SIG, Library Marketing SIG, Pharmacy and Drug Information Section, Public Services Section, Veterinary Medical Libraries Section

Minneapolis Convention Center, Room 101B, Level One

3:05 p.m.
The Changing Face of Reference: Biomedical and Health Information Services in the Classroom, Clinic, and Beyond
Michele R. Tennant, AHIP, Assistant Director and Bioinformatics Librarian, Health Science Center Libraries and UF Genetics Institute; **Cecilia Botero,** Associate Dean and Director; **Beth Auten, AHIP,** Reference and Liaison Librarian; **Linda C. Butson, AHIP,** Consumer Health and Community Outreach Librarian; **Mary Edwards,** Distance Learning Librarian and Liaison; **Nita Ferree, AHIP,** Reference and Liaison Librarian; **Rolando Garcia-Milian,** Biomedical Sciences Librarian; **Jennifer A. Lyon, AHIP,** Clinical Research Librarian; **Hannah F. Norton, AHIP,** Reference and Liaison Librarian; Health Science Center Libraries, University of Florida–Gainesville
Objective: To further integrate library services within the health center, the University of Florida (UF) Health Science Center Library (HSCL) closed its reference desk, freeing librarians to continue traditional curricular support and facilitate enhanced collaboration with users in their "natural habitats." Position/funding redesign were key in creating a mobile, refocused, and reconfigured department and developing services to support clinical and community engagement missions.
Methods: The HSCL has provided traditional reference desk services since 1974, and with the establishment in 1999 of an innovative liaison program, serves the educational and research information needs of six health-related colleges. To facilitate customized services and librarian mobility, the desk closed in 2009, with a corresponding move to an "on-call" model. Recently, a "house-call" service was added in which librarians serve their clients outside the library. Through position redesign and creative funding, three new librarian positions (clinical research, biomedical sciences, and veterinary medicine/medicine liaison) were added and two (nursing, consumer health) reconfigured, effectively doubling the size of the department despite difficult economic times. Professional development opportunities for staff and clients have been enabled via grant funding, as has a new emphasis on integrating the library into the life of the university through exhibits and related speaker and film series.
Results: Increased staffing, much made possible through creative position/service redesign, allowed the library to expand into the clinical realm, establishing a relationship with the hospital through rounding and engagement with nursing fellows and research council. clinical research and biomedical science librarians support the fledgling Clinical and Translational Science Awards and basic science research communities. A partnership with the public library has been initiated. A new emphasis on bringing students and others into the physical library has resulted in a dedication to exhibitions, speaker series, films, and a newly created marketing plan. House calls take the librarian to the client, leveraging existing liaison relationships.
Conclusions: By redesigning positions based on client need, partnering with the main campus library, and retiring services that had become obsolete, the HSCL has been able to meet previously unmet information and institutional needs. New opportunities have reenergized staff as well as library users and have highlighted the library's relevance.

3:25 p.m.
Rethinking the Health Sciences Library as Place: Providing Service Without a Health Sciences Library
Susan K. Kendall, Health Sciences Coordinator, Michigan State University Libraries, Michigan State University–East Lansing
Objective: To describe the management challenges and techniques needed for health sciences librarians to provide collections and services without a dedicated health sciences library near their users.
Methods: Michigan State University Libraries have always served several health colleges, including two medical schools, without a physical, dedicated health sciences library. The challenge presented by this has recently multiplied with the opening of expansions of our medical schools in cities miles from our main campus. Health sciences librarians provide services and collections to our health sciences patrons on the main campus and at remote locations from a centralized university main library. For years, our situation was unique; however, the current economic climate on campuses has resulted in a trend toward closing subject-specific library branches and increasing centralization of university library systems and their functions. Many health sciences librarians are rethinking ways to serve their users because the dedicated library place can no longer be taken for granted. We will share methods our librarians have used to work within a centralized system in hopes that our experiences will be informative for administrators and other librarians and generate a discussion of what good health sciences library services look like in a 21st century setting.
Results: Meeting the challenges of providing excellent health sciences library services and collections without a dedicated, separate library requires strategic moves on several fronts: public relations with the colleges, relationships with partners, technological solutions, and education of non-health sciences library staff and administrators.
Conclusions: Health sciences librarians without a dedicated health sciences library face some hurdles in working with their user groups that those who work in a health sciences library do not, but the economic need of universities to centralize and restrict duplication of effort will likely continue to impact libraries. We have found that, despite the challenges, centralization can offer some advantages and opportunities for the health sciences librarian who is creative, self-directed, and collaborative.

3:45 p.m.
When the Going Gets Tough, the Tough Renegotiate Their Consortial Journal Deals
Emma Cryer, Electronic Resources Librarian; **Karen S. Grigg, AHIP,** Associate Director, Collection Services; Medical Center Library and Archives, Duke University, Durham, NC; **Christie Degener,** Head, Resource Management Services, Health Sciences Library, University of North Carolina–Chapel Hill
Objective: This paper describes the contract-renegotiating strategies employed by the research library network during the recent global economic downturn and highlights the methods employed by the consortium to defray content loss while reducing costs. A new collaborative model of title selection was proposed that would require intense cooperation between selectors from three different institutions but benefit all our patrons.
Methods: The libraries have used consortial purchasing as a means of gaining expanded shared-title access for many years, but recent budget cuts at all four universities called for more creative solutions to maintain our journal collections. Taking advantage of interinstitutional journal metrics, we crafted a model of shared collection development, creating one mutual journal title list for a specific science, technology, and medicine publisher. Any changes to the shared list by any one school must be vetted by representatives from all schools. Autonomy over specialized collections once held by more than sixty independent selectors suddenly became a team-based exercise in collaboration between universities, and the model met with many challenges and obstacles. Metrics (cost-per-use, impact factor, subject strength) formed the bedrock of this model.
Results: The new hypercollaborative consortial collection development model allowed the de-duplication of title lists and an overall spend reduction of 20% for the test publisher. Thus access to content was expanded while costs were lowered.
Conclusions: The network is now looking to expand the use of the new model to other publishers, beginning with a push in the e-books market. Such intense collaboration between institutions highlights the importance of consortial buying power especially in the face of a bleak economic climate.

4:05 p.m.
The Politics of Rethinking: Building a Library Network for a Hospital System
Gretchen Hallerberg, AHIP, Director; **Marian Simonson, AHIP,** Systems Librarian; **Michelle Kraft, AHIP,** Senior Medical Librarian; Alumni Library, Cleveland Clinic, Cleveland, OH
Objective: To create collaborative relationships among library staff, patrons, and hospital administration for the large teaching hospital and nine regional hospitals in the Cleveland Clinic Health System, focusing on overcoming the competing interests for funds, staffing levels, and power.
Methods: Hospital sizes range from 118 to 1,210 beds. Each library is financed individually through its own hospital; several hospitals have recently reduced or eliminated their library staffing. Pressure is increasing for system integration in other operational areas, and many physicians and other caregivers now rotate within or have been reassigned in the system. The librarians see increasing demand to standardize core resources and, consequently, an increasing need to collaborate. Building from a long history of local resource sharing and friendships, the librarians of these hospitals have been working as a group to explore shared solutions for these issues.
Discussion: This paper discusses the successes, near-successes, and failures of various projects from the perspectives of library staff, patrons, and hospital administration. The focus is on the processes involved in developing system integration, rather than on the project details. Particular attention is paid to developing alliances among library staff and hospital administration.
Conclusions: Getting enthusiastic buy-in from library staffers, understanding from patrons, cooperation from vendors, and support from otherwise-preoccupied administration is not easy in the current economic climate.

Medical Library Education Section

New Voices

Cosponsored by Research Section, New Members SIG
Minneapolis Convention Center, Room 101C, Level One

3:05 p.m.
Flying to the Top, One Tweet at a Time: Using Social Media to Rank Online Search Results
Robyn B. Reed, Certificate Fellow/Student; **Carrie L. Iwema,** Information Specialist, Molecular Biology; **Ansuman Chattopadhyay,** Head, Molecular Biology Information Service; Health Sciences Library System, University of Pittsburgh, Pittsburgh, PA
Objective: The number of online bioinformatics tools and software is growing at a rapid pace. To provide website visitors with up-to-date ratings of the most highly regarded resources in this area, we are exploring the creation of a ranking system of our library's online bioinformatics resource collection based on popularity in social media.
Methods: We maintain a searchable online resource that provides annotations about and links to several bioinformatics databases and tools. Search results are currently ordered by keyword matching rather than by popularity. To determine which are the most highly regarded and used, we will analyze common bioinformatics query results (e.g., protein structure modeling tools, genome browsers) by data mining the social media and ranking resources based on those most discussed in these outlets. Our sources include the Google categories blogs and discussions along with updates for Twitter searches. We will determine the overall applicability of our social media ranking methodology to bioinformatics as well as consumer health and general interest topics. The authors will conduct independent searches to verify inter-rater reliability. Results from this study will help users of our bioinformatics search engine locate the best tools for their needs.

3:21 p.m.
Making Sense of Breast and Ovarian Cancer in Minority Populations: Online Information Seeking by First-degree Relatives
Peggy Gross, Institutional Assistant Director and Supervisor, Learning Resource Center, Lake Erie College of Osteopathic Medicine, Greenburg, PA
Objective: My research explores online information-seeking needs, experiences, and motivation of first-degree relatives (FDRs) of breast and ovarian cancer patients and survivors. Analysis focuses on six populations of minority women: Pacific Islander, African American, Asian American, Hispanic American, Native American, and Multi-Ethnic groups.
Methods: Sense-making methodology/inductive analysis. The research questions are:
1. How often and to what extent do FDR minority groups seek online information about cancer as compared to nonminority/white online cancer information seekers?

2. Where do FDR minority groups of breast or ovarian cancer survivors turn when looking for quality cancer information online?
3. How do FDR minority groups rate their satisfaction with the existing online cancer information environment? Are there points of concern about the information environment that stand out against others?
4. What types of cancer information do FDR minority groups search for online for themselves and other family members? How do FDR minority groups of cancer survivors compare with others in terms of motivated usage of online cancer information resources?
Via an email communication, the Susan Love Breast Cancer Research Foundation distributed 322,000 invitations to its membership to complete my online survey; 10,692 agreed to take the survey, and 9,201 volunteers completed survey responses.

3:37 p.m.
An Exploration and Comparison of Web Technologies Utilization in Academic Health Sciences Libraries in the South Central and Pacific Southwest Regions
Sharon Lee, Graduate Student, Health Informatics Program, University of North Texas–Denton
Objective: To provide a definition of Web 1.0, Web 2.0, and Web 3.0 technologies based on a literature review and to explore and compare the growth and use of these technologies in the websites of members of the association in the library regions.
Methods: A literature review from 1996 to 2010 of Web 1.0, Web 2.0, and Web 3.0 technologies was conducted. The website archives and current websites of the association libraries were analyzed to identify and compare the technologies that have been incorporated into the websites. A survey was sent to the libraries to further determine the use of Web 3.0 technologies in their websites.

3:53 p.m.
Information-seeking Behavior of Health Care Professionals: Recent Trends
Katia G. Karadjova, Student, Master's of Library and Information Science, San Jose State University, and Intern, Parks Medical Library, Long Beach, CA
Objective: To provide an overview of the trends in recent publications (2008 and after) on information-seeking behavior (ISB) of health care professionals; The overview is meant to be a part of the marketing research toward developing a core marketing strategy and marketing plan for Parks Medical Library at Long Beach Memorial Medical Center (LBMMC) and Miller Children's Hospital (MCH), Long Beach, CA.
Methods: Literature review.
Results: The main points in recent studies of ISB of health care professionals are patterns of information seeking and ISB models, collaborative information behavior, reading habits, resource preferences and self-awareness, the impact of the presence of a medical librarian on the ISB in different health care professionals' subgroups, health informatics, and, last but not the least, evidence-based health care.
Conclusions: Studying the ISB of health care professionals helps to identify their particular needs, recognizing desirable skills as well as highlighting strengths and weaknesses of particular resources and services. Research has concluded that information sources, services, and practices are of fundamental importance in clinical environments given their direct contribution to decision making in health issues, often making the difference in patient survival. Thus, the recent trends in ISB of health care professionals should be taken into account when developing core marketing strategies and marketing plans for medical libraries.

4:09 p.m.
Are We Culturally Competent? Examining the Training and Involvement of Health Information Professionals
Letrice Davis, Graduate Student, Health Informatics Program, University of North Texas–Denton
Objectives: To provide a definition of cultural competency based on a literature review and to explore health information professionals' training and involvement in cultural competency.
Methods: A literature review from 2000 to 2010 of cultural competency in library and information sciences was conducted. An electronic survey was distributed to health information professionals via MEDLIB-L to identify levels of training and involvement in cultural competency in their organization.

Section Council

Education (General Topic Session)

Cosponsored by Libraries in Curriculum SIG, Medical Library Education Section

Minneapolis Convention Center, Room 101J, Level One

3:05 p.m.
It's All Online: Developing and Implementing an Asynchronous Online Two-course Graduate Sequence in Health Sciences Information Services
Marisa L. Conte, Clinical and Translational Science Liaison, Taubman Health Sciences Library, University of Michigan–Ann Arbor
Objective: A library and information sciences graduate school that offers a concentration in health sciences librarianship was interested in converting the traditional classroom-based in-person core sequence to an asynchronous, online offering. This paper will document the author's experiences in transitioning both of the core courses in the health sciences librarianship concentration to the online environment.
Methods: The paper will cover all aspects of the course sequence development and delivery, from planning to evaluation, beginning with the results of literature search to inform best practices in online instruction and continuing through a complete revision of the content of one core course (and the rationale for doing so). Technologies used in both core courses will be explained, including course management and collaborative softwares, presentation and communication packages, and online resources used to enhance course content. Assessment of the courses' successes and failures will be addressed based on student performance and evaluations. Finally, there will be a discussion of the advantages and disadvantages to offering these courses in a fully online environment.

3:21 p.m.
Rethinking PubMed: How Effective Is Face-to-face Training
Joey Nicholson, Lead Trainer; **Sharon Brown,** Associate Director; National Training Center and Clearinghouse, New York Academy of Medicine–New York
Objective: To demonstrate how teaching PubMed in a daylong, face-to-face class results in improved knowledge of database functions and to determine which content areas of the class are best and least understood. Results will then be used to improve instructional design in areas that seem to be poorly presented or grasped.
Methods: An electronic pre- and posttest were administered to participants in PubMed training at one to two weeks before class and again at one to two weeks following class. This evaluation

aimed to gauge their knowledge of the core competencies of the PubMed database and its functions and to measure any improvement in knowledge after taking the class. Pre- and posttest results for individual questions will be analyzed using ANCOVA on posttest scores, with pretest scores as covariates.

3:37 p.m.

Faculty in Doctor of Nursing Practice Programs: How Do They Use Us and How Do They See Us?

Elizabeth V. Fine, Liaison Librarian, Health Sciences Libraries, University of Minnesota–Minneapolis

Objective: To determine the extent to which faculty in doctor of nursing practice (DNP) programs are currently engaging with librarians to support teaching and learning in the DNP curriculum, and to measure the attitudes and perceptions of faculty about these connections. The DNP is the new terminal degree for advanced practice nurses, and the program was chosen to study because of its emerging importance and the manageable number of currently active programs. Additionally, the DNP curriculum is especially relevant for librarian involvement because of the focus on evidence-based practice, which requires strong information-finding and evaluation skills.

Methods: A cross-sectional study of faculty members who had taught a class to DNP students within the last year (since January 2009) was conducted in May 2010. A survey was developed with questions about how and if DNP faculty worked with librarians and about their perceptions of the value of collaborating with librarians. An email was sent to the program directors of the 116 DNP programs currently active at the time, describing the study and asking that they forward the request for participation (containing a link to the online survey) to faculty in their DNP programs.

Results: The survey received 118 responses. Responses from 53 different DNP programs (46%) were self-identified, and 15 respondents did not identify a school, so the percentage of programs responding is likely at least 50%. Data present a picture of instructor demographics, online course presence, interaction with librarians, attributes of instructional sessions, frequency of engagement between faculty and librarians, and perceptions of value of engagement with librarians related to usefulness, time-savings, and quality of student work.

3:53 p.m.

Meaningful Impact Factors: Assessing Bibliometric Education and Services

Dean Hendrix, Coordinator, Education Services, Health Sciences Library, State University of New York–Buffalo

Objective: Over the last five years, interest in citation analysis has grown sharply among users at a large urban academic health sciences library. To effectively meet the rapidly changing needs of health sciences researchers and academic departments, library staff began offering various bibliometric education options and research services. This paper discusses longitudinal assessment data (2006–2010) from the library's bibliometric education and services program.

Description: In 2006, library staff began developing and teaching a foundational course, "Tenure Metrics: Assessing Your Bibliography," to acquaint researchers with (1) citation information sources; (2) the strengths, weaknesses, and meaning of established and novel bibliometric indicators; and (3) the presentation of bibliometric information. In concert with user education, the library offered individualized consultations to mine free and proprietary citation databases and demonstrate advantageous methods of quantifying and displaying research impact.

Methods: Surveys were administered to researchers attending bibliometric workshops or receiving bibliometric services in order to assess their individual and departmental needs pertaining to citation analysis. Efficacy of instruction, use of support resources, and user satisfaction were also evaluated. Surveys were grouped by year to illustrate the evolution of researchers' knowledge of, attitudes about, and use of citation analysis from 2006–2010.

Results: Since 2006, 46 faculty and staff members have attended the basic (n=36) and advanced (n=10) tenure metrics workshops offered by library staff. Faculty reported high levels of satisfaction (72% highly satisfied, 21% satisfied) with the teaching and content of the workshops. However, the most illuminating data came from the respondents' free-text comments on their bibliometric needs. Frequently mentioned individual needs included the calculation of personal metrics, citation data management, presentation of citation data on personal dossiers, and individualized sessions with experts in citation searching. In assessing the needs of their departments, faculty and staff often cited the need for training faculty, especially senior faculty and administrators, and nuanced standards that take the limitations of citation analysis into account.

Conclusion: Continuous assessment has proved valuable in determining the faculty's facility with citation analysis, the direction of future offerings, and the efficacy of the tenure metrics program.

4:09 p.m.

Redefining Boundaries: Nursing Instruction at a Global University

Gurpreet K. Rana, Coordinator, Library Global Initiatives and Global Health Liaison, University Library/Taubman Health Sciences Library; **Jody R. Lori,** Director, Office of Global Outreach, and Clinical Assistant Professor, School of Nursing; University of Michigan–Ann Arbor

Objective: This paper examines collaboration between the library and the school of nursing's newly formed office of global outreach for the provision of global health information curriculum-integrated instructional interventions. Varied interdisciplinary instructional techniques, strategies, and resources are examined.

Setting and Brief Description: As globalization in higher education and in the health sciences becomes increasingly pervasive, the role of the library in global health study and research has become increasingly relevant. Two interventions are highlighted in this paper: education of nursing students with access to the "information resource rich" environment provided by the library and librarian instruction for visiting scholars on short visits from comparatively resource poor regions. Firstly, a new elective course was introduced in fall 2010 in the nursing curriculum, "Perspectives in Global Health," emphasizing global burden of disease, determinants of health, and the importance of an interdisciplinary approach to health care delivery. Course-integrated instruction was provided by the global health liaison, using thematic elements of the United Nations (UN) Millennium Development Goals in instructional design. Secondly, instructional sessions of open access resources in health for rotations of visiting midwife faculty were made available, focusing on literature searching technique, statistical resources, and discipline-relevant resources.

Veterinary Medical Libraries Section

From Bench to Bedside: Librarians' Roles in Translational Medicine

Cosponsored by Institutional Animal Care and Use SIG, Molecular Biology and Genomics SIG, Pharmacy and Drug Information Section

Minneapolis Convention Center, Room 101A, Level One

3:05 p.m.

Clinical and Translational Science Awards Renewal Activities: A Vital Role for Libraries

Kristi L. Holmes, Bioinformaticist; **Cathy C. Sarli, AHIP,** Scholarly Communications Specialist; Bernard Becker Medical Library, School of Medicine, Washington University, St. Louis, MO

Objective: As institutions move through the clinical and translational sciences award (CTSA) renewal process, a new and critical role for the library emerges. This role utilizes the skills, expertise, and resources of the library and places the library as a vital partner in CTSA evaluation and renewal efforts.

Methods: Liaisons from Becker Medical Library to the Washington University Institute of Clinical and Translational Sciences formed a successful partnership with the leadership and members of the institute and collaborated with the institute on a number of initiatives throughout the course of the CTSA funding period. As the institute prepared for the renewal of the CTSA, they engaged the library in a number of directions, ranging from participation in the renewal kickoff and brainstorming activities to network analysis of institute members. The liaisons' contribution to evaluation proved to be a particularly strong area of collaboration. Reporting metrics for renewal purposes included: citation analysis for individual members as well as groups of faculty, research impact analysis, social network analysis, survey development, and more. The library's activities related to renewal activities will be covered as well as a discussion of how these valuable connections were established.

Results: A strong collaborative relationship between the library and the Washington University Institute of Clinical and Translational Sciences was forged over the course of the funding period. This relationship produced a number of collaborative efforts, especially in the area of evaluation. Library liaisons joined the tracking and evaluation team and contributed in activities related to the evaluation of the current award as well as renewal activities.

Conclusions: Effective support of evaluative translational informatics activities on campus can be challenging, as it can be difficult to track the efforts of such a large cadre of investigators and understand how these efforts translate to improved health outcomes. By partnering with the library, the institute was able to leverage the resources and expertise of the library in a way that encouraged discovery of a variety of outputs that indicate impact in the translational environment.

3:21 p.m.

Perceptions of Data Needs, Data Skills, and Library Roles: A Focus Group of Translational Researchers

Tania P. Bardyn, AHIP, Associate Director, Public Services, Louise M. Darling Biomedical Library, University of California–Los Angeles; **Taryn Resnick, AHIP,** Electronic Resources Librarian, Medical Sciences Library, Texas A&M University–College Station; **Susan Camina,** Public Services Assistant, Louise M. Darling Biomedical Library, University of California–Los Angeles

Objective: This study examines translational researchers' educational needs regarding effective curation and management of data in a large academic medical center. Improving data curation and management practices is a need among all types of researchers; funders now mandate that research data are essential to scholarship. Medical librarians must develop appropriate services to support data curation and data management activities.

Methods: Eight translational researchers at the David Geffen School of Medicine at the University of California–Los Angeles (UCLA) participated in focus groups facilitated by a librarian moderator using a semi-structured interview guide. Six specific domains of data curation needs were identified from previously published literature. Data needs were explored across domains, including (1) general impressions of managing clinical research data; (2) research data curation including selection, preservation, maintenance, collection, and archiving; (3) data management practices in clinical environment; (4) library roles; (5) data sharing challenges as a result of large networks of collaborating institutions; and (6) challenges working with data in universities. Discussions were videotaped, transcribed verbatim, and later analyzed by three librarians and two master's of library and information science students to determine the commonalities and differences among the seven medical specialties represented in the focus groups.

Results: Translational researchers at UCLA recognize that data management is costly and labor-intensive. An infrastructure of dedicated information technology professionals is central to their research efforts. Neurologists, geneticists, oncologists, and pediatricians all expressed the need for resources to improve data workflows; data integration; guidance in effectively handling the data generated, collected, and queried; and instruction on discovering and utilizing available resources. This study identified several education needs, including depositing data into repositories, roles within the process of data curation, ethical issues surrounding data practices, and education of researchers on how to balance the issue of access versus security.

Conclusions: Significant educational needs exist regarding data curation and data management among translational researchers. Specialties surveyed in this study would benefit from specialty-specific education regarding available data resources, software, instruction, and services available for each research area. Further studies are needed to clearly identify and evaluate specialty specific educational needs before libraries can develop strong partnership roles and services.

3:37 p.m.

For Better or For Worse: Marrying the Library to the Clinical and Translational Science Institute to Provide Molecular Biology Information Support Services

Donna Berryman, Assistant Director, Education and Information Services; **Michele Shipley,** Assistant Director, Digital and Branch Libraries; **Julia F. Sollenberger, AHIP, FMLA,** Associate Vice President and Director; Medical Center Libraries and Technologies, University of Rochester Medical Center, Rochester, NY

Objective: To determine if an academic health sciences library can successfully partner with the university's clinical and translational science institute (CTSI) to provide resources, training, and software for researchers and graduate students in the fields of molecular biology and genetics.

Methods: Setting/Participants: The library worked for two years to develop a plan and find funding to provide genomics and proteomics resources and tools, and to hire a full-time PhD information specialist (preferably with an MLS) to offer support

and training. Funding was not forthcoming, so the Clinical and Translational Science Awards (CTSA) principal investigator, a library champion, proposed an "arranged marriage" with the CTSI's Navigator Program (which matches researchers with the tools and resources they need to be successful). The CTSI researcher identified for this role is now a part-time information specialist, becoming an expert in the use of molecular biology tools and software.
Program: This courtship and marriage brings together two parties with different approaches. Challenges include different customer service orientations, purposes, and branding. But the library has benefited by gaining access to a researcher/information specialist (at no cost to the library), the navigator's referral/reporting system and professional evaluator, start-up funding for licensed software, and established connections to researchers.
Results: Using CTSI funds, the library licensed several proprietary molecular biology programs and developed a web-based account registration system. Use of the software is steadily growing, and several workshops have been offered. As a result of outreach by the CTSI specialist, researchers are beginning to realize the library has a role in the provision of genomic and proteomic information tools and resources and librarians have begun building relationships with previously disinterested researchers.
Conclusions: The arranged marriage is young, and challenges and benefits are already apparent. The greatest challenge is the partners' dissimilar visions of the program: the CTSI Navigator program sees itself as a referral service; the library's vision is to have an expert on staff with a strong customer service orientation who can answer most questions without referral. This key difference must be reconciled for the arranged marriage to survive the early years and become a stable, long-term relationship.

3:53 p.m.
Rethinking Our Roles: Genomics and Translational Medicine for Information Professionals
Ana D. Cleveland, AHIP, Professor and Director, Health Informatics Program, Department of Library and Information Sciences, University of North Texas–Denton; **Kristi L. Holmes,** Bioinformaticist, Becker Medical Library, School of Medicine, Washington University, St. Louis, MO; **Jodi L. Philbrick,** Course Coordinator, Health Informatics Program, Department of Library and Information Sciences, University of North Texas–Denton
Objective: To provide an overview of a new course in a health informatics program in a college of information and to demonstrate the roles that information professionals can play in genomics and translational medicine.
Methods: A three-credit hour semester course was offered in a five-week summer session in 2010. The course content included concepts and practical skills in information management in the context of genomics and translational medicine. Students learned basic concepts in genomics, personalized medicine, and translational medicine and explored the information needs of basic bench scientists, clinicians, and consumers related to genomics. Major information resources in genomics were introduced and discussed, and emphasis was placed on the role of information professionals in supporting genomic and translational medicine efforts. Specific examples will be presented to illustrate how information professionals provide support from bench to bedside.
Results: Fourteen future health information professionals have gained an understanding of genomic and translational medicine information management and are prepared to serve information requests in these areas.
Conclusions: A successful partnership was formed between a bioinformaticist and library school faculty to create a model for teaching graduate library and information sciences students about genomics and translational medicine.

4:09 p.m.
Lost in Translation? Not this Library! Engaging Translational Researchers on the Bench, at the Bedside, and Beyond
Marisa L. Conte, Clinical and Translational Science Liaison, Taubman Health Sciences Library, University of Michigan–Ann Arbor
Objective: Identifying and meeting needs in an organization as complex and multidirectional as an institution's Clinical and Translational Science Award (CTSA) is a challenging prospect. Demonstrating value to that institution's CTSA in the run-up year to grant renewal is even more daunting. This paper will present a selection of projects undertaken by an academic health sciences librarian with liaison responsibilities to the institution's CTSA. The projects cover three different audiences—bench researchers, clinical researchers, and research support staff—and demonstrate the wide range of opportunities for librarians to engage translational researchers through education, targeted collection development, and hosting of research collaboration events.
Methods: Describe the goals, processes, and outcomes of three different projects:
1. a library-developed and -hosted series of "speed networking" events, designed to foster collaboration between bench and clinical researchers, junior researchers and potential mentors, and all researchers and research support services
2. development of an e-learning library to support the basic information needs of early career clinical and translational researchers, including a needs assessment, content development, and resource production
3. a collection and needs assessment designed to improve the library's collection of research resources for bench and translational researchers, particularly those using animal models

Section Programs 4
Tuesday, May 17, 3:00 p.m.–4:30 p.m.

Consumer and Patient Health Information Section

Serving the Information Needs of a Multilingual/ Multicultural Clientele

Cosponsored by Nursing and Allied Health Resources Section, Complementary and Alternative Medicine SIG, Outreach SIG

Minneapolis Convention Center, Room 101C, Level One

3:05 p.m.
Increasing Access to Quality Information for New Americans: The New Americans Library and Internet Project
Judith Weinstein, Associate Director, Heartland Health Outreach, Chicago, IL
Description: This project aims to expand access to quality electronic health and medical information for refugees and immigrants on the north side of Chicago through a partnership among Heartland Alliance Refugee Health Programs, a program of Heartland Health Outreach (HHO); the University of Illinois-Chicago's Library of the Health Sciences; and two branches of the Chicago Public Library located in Rogers Park and Uptown, two neighborhoods with significant refugee and immigrant populations. This project was developed based on findings from research that we have applied to the context of serving the health education needs of refugees and immigrants, specifically: (1) consumer access to health information is important to health care; (2) searching the Internet, including searching on medical topics, is second nature to most Americans, but does not always lead to quality health information; and (3) the value of training for public library staff in searching and evaluating health information on the Internet is a fruitful endeavor. It is hoped that this project will contribute to an individual's safe and healthy journey as a refugee or immigrant, to a client of health services, to becoming a patron of one of Chicago's greatest institutions, the public library.

3:35 p.m.
Health Literacy Resources for Refugees: Is Reading Required?
Margaret (Peg) Allen, AHIP, FMLA, Consultant, Health Knowledge Consultants, Stratford, WI; **Mary Alice Gillispie,** Director, Healthy Roads Media, Bozeman, MT; **Peter Yang,** Executive Director, Wausau Area Hmong Mutual Association, Wausau, WI; **MeLee Thao,** Physician Assistant, Family Medicine, School of Medicine and Public Health, University of Wisconsin–Wausau
Objective: The authors repurposed plain language English health information resources into bilingual multimedia tools for health and patient education. Our goal is to improve the health literacy of health providers, interpreters, and refugees in our global village. These resources are freely available via our websites and linked via MedlinePlus.
Methods: Various methods were used to locate appropriate resources, including some already translated into a second language, usually Spanish. The authors worked with copyright holders and government agencies to obtain permission to translate and convert into audio and downloadable multimedia formats. When appropriate information was not available for the target populations, new resources were developed based on National Institutes of Health publications. Resources were translated into the requested languages for each contract, recorded, and produced as multimedia programs, with some converted into streaming video. Each new series is shared via online mailing lists. Evaluation methods include analyzing website utilization records and web surveys, and sharing stories using the resources for patient education and radio programs. The paper uses the Hmong heart health series (Hmonghealth.org), produced under a National Network of Libraries of Medicine, Greater Midwest Region, contract, as a case study illustrating typical challenges in translation and cultural adaptation.
Results: While web survey respondents state that they prefer handouts, website data indicate that more audio and files are downloaded from Healthy Roads Media (www.healthyroadsmedia.org). Hmong health workshop evaluations indicate preference for use of audiovisual resources with the opportunity to question an expert in their own language, with help from a qualified interpreter.
Conclusions: For low literacy audiences, including refugees and English as a second language groups, audio and multimedia formats are preferable to print. While these consumers prefer education from their providers, learning is enhanced via take home resources and broadcast messages. Refugee groups appreciate use of prerecorded, culturally appropriate media in their own languages as part of health education programming.

3:50 p.m.
Expanding Access to Culturally Diverse and Language Appropriate Health Information: The Web-based Refugee Health Information Network
Gale A. Dutcher, Deputy Associate Director, Division of Specialized Information Services, National Library of Medicine, Bethesda, MD; **John C. Scott,** President, Center for Public Service Communication, Arlington, VA
Program Objective: The intention of the Refugee Health Information Network (RHIN) is to make accessible high-quality culturally and linguistically appropriate health information. Further, RHIN serves to enable a culture of information sharing and communication among those who specialize in refugee and immigrant health.
Description: Refugees resettled in the United States are increasingly diverse in national origin, ethnicity, and native language. Public health professionals and care providers are challenged to provide appropriate and accessible health information as well as to improve their own capacity to deliver care that is responsive to their refugee clients and patients as well as to the general immigrant population. Access to and sharing of information has been identified as critical. The core of this program is to develop a database of reviewed and high-quality, multilingual, multicultural information. RHIN does this by partnering with the Association of Refugee Health Coordinators. These public health officials serve in the health departments of most states and coordinate the health care access for refugees being resettled. RHIN also has trusted partners including Ethnomed and Healthy Roads Media, which have high-quality content that supplements what is in the RHIN database and is searched simultaneously by the RHIN search engine.
Results: The RHIN website has been available for several years and was just redesigned based on input from users, particularly from the Association of Refugee Health Coordinators. It is organized to (1) provide ease of use with the ability to find multilingual health information in a variety of formats, (2) support the sharing of resources from users and producers of information, and (3) promote learning about refugees and asylees. RHIN encourages users to submit their documents, audio, video, or other types of files for review for possible use on RHIN. Each provider of content is also asked to supply metadata about the

item. This includes title, abstract, languages available, type of item, producer or authors, keywords, development and review methodology, and copyright.

4:05 p.m.
Vocabulary and Taxonomy Issues When Searching Lesbian, Gay, Bisexual, and Transgender (LGBT) Health Literature
Mary Jo Dorsey, AHIP, Post Doctoral Associate, Department of Biomedical Informatics, School of Medicine, University of Pittsburgh, Pittsburgh, PA
Objective: Information documented in published articles relating to lesbian, gay, bisexual, and transgender (LGBT) health issues is generally reported in a free-text or keyword format. This creates inaccessibility to bibliographic data in the health sciences databases. The purpose of this paper is to describe gaps in existing vocabularies and taxonomies. The paper will demonstrate more formal semantics and a working taxonomy that could be included in developing indexes that would integrate metadata from the health sciences.
Methods: A literature search on health issues of LGBT individuals was done, using indexes of health sciences literature (MEDLINE). Precise retrieval was difficult using standard subject heading lists and controlled vocabularies such as Medical Subject Headings (MeSH). No searches adequately retrieved an integrated and inclusive representation of LGBT health literature. A search using existing taxonomies yielded eighty articles ranging from general to semi-specific accuracy. A careful reading of the articles prompted the effort to strengthen existing taxonomies including LGBT or "gay-sensitive" terms from the medical informatics and consumer-driven perspectives.
Results: An analysis of LGBT terms, derived from a sampling of published research literature as well as gay slang and Internet metadata, is presented, which suggests a more appropriate set of terms to use when searching the health sciences literature that reports current research on health concerns of LGBT persons. If a more specific taxonomy, including gay slang and appropriate metadata, can be developed, tested, and implemented, the terms will enhance the sparse amount of literature that is currently retrieved by using consumer terminology (free-text or keywords) when using academic and consumer retrieval systems.
Conclusions: Diversification of the ontological representation of LGBT terms requires a more precise attempt to update and enhance literature retrieval efforts of bibliographic information. Both pro's and con's discovered in the practicality of inclusion of gay slang (as introduced in the web directory, "Dictionary of Gay Slang, Words and Terms") will be highlighted.

Educational Media and Technologies Section

Rethinking Portals

Cosponsored by Hospital Libraries Section; Lesbian, Gay, Bisexual, and Transgendered Health Science Librarians SIG

Minneapolis Convention Center, Room 101J, Level One

3:05 p.m.
Managing Multiple Websites in Drupal: Selecting the Right Tool for the Job
Emily G. Morton-Owens, Assistant Curator and Web Services Librarian, Health Sciences Libraries; **Dorothy Moore,** Web Marketing Manager, Stern School of Business; New York University–New York
Objective: This presentation discusses approaches to managing multiple websites in Drupal, when the sites share certain features but are required to look unique or offer distinct functionalities. An academic health sciences library developed five "portal" websites, each targeted to a different medical specialty or audience. The specialty sites were required to look distinct from the library's main website, but librarians wanted to capitalize on the main site's existing Drupal infrastructure whenever possible. The library investigated several methods of developing and administering the specialty sites. Here, we compare the advantages and disadvantages of each method, discuss how to analyze site requirements, and provide recommendations on how to select the "right tool for the job."
Methods: The Drupal content management system (CMS) offers several approaches to managing multiple websites. The approaches include (1) using Drupal's "multisite" capabilities, (2) using Drupal's Sections module to create the illusion of a separate website through a distinct visual theme, and (3) building a completely separate Drupal instance but using RSS and XML to "feed" content from one site to another. Associating the sites closely in Drupal can streamline website administration with respect to managing authenticated users, simplifying CMS settings, and installing updates to the CMS code.
Results: Using Drupal Sections, the library constructed two specialty subject sites with distinct branding but a single administrative backend. The alumni website was created as a completely separate Drupal instance because of its required authentication scheme. It is "fed" content from the main library website. The consumer health site was implemented using Drupal's multisite functionality. This introduced complexity to site maintenance: Each update to Drupal code must be installed in multiple places.
Conclusions: Analyzing site requirements is critical to selecting the best tool for developing and maintaining multiple websites in Drupal. Consideration must also be given to the habits of the website's editors, the technical skills and capabilities of library personnel, and the needs of website users. The most straightforward approach to building a website with separate branding but shared backend functionality is Drupal's Sections module. Associating websites closely in Drupal streamlines website administration but sacrifices some customization opportunities.

3:25 p.m.
The Cake Is a Lie: Why Systems Can't Manage Content and What to Do About It
Wayne Loftus, AHIP, Web Services Coordinator, Health Sciences Libraries, University of Minnesota–Minneapolis
Objective: To effectively govern the content of a large health sciences library website, to distribute content authorship and governance responsibilities throughout the organization, and to eliminate the web manager bottleneck, while ensuring the timeliness and usefulness of the site's content.
Methods: The health sciences libraries first implemented Drupal in 2006 with good results: The system made it possible for authors to create and edit content without the intervention of technical staff. However, in 2009, when the site was upgraded to Drupal 6, the project team discovered, during a comprehensive content audit, that orphaned and extraneous content existed throughout the site, much of it having remained unedited since the original Drupal installation. Core pages had been allowed to stagnate, and other pages, created in response to perceived needs, had been abandoned and forgotten by all but Google. The team edited the content as necessary, but in a full redesign in 2010, discovered that the core problem persisted. This paper will present the results of the creation and implementation of a comprehensive content strategy, outlining the rules for each type of content on the site, including who is responsible and how each content type is to be governed during its entire lifecycle.

3:45 p.m.
Rethinking the Library Website: Choosing a Content Management System
Jin Wu, Emerging Technologies Librarian; **Janis F. Brown, AHIP,** Associate Director, Systems and Information Technology; Health Sciences Libraries, University of Southern California–Los Angeles
Objective: Faced with a library website revision, we decided that a content management system (CMS) would serve us best by providing a consistent design template that could be easily modified by multiple librarians, as well as management tools. There were several CMS options available to us, so we needed to determine the best choice for our small library.
Methods: The library web team includes an emerging technologies librarian and a relatively small technology support staff that does not include a programmer, but does support a cluster of servers including web servers. Two other librarians provide content for the site. The CMS options at our institution included the high-end, commercial Sitecore used by the medical school and two open source options (Movable Type and WordPress). We had also explored but decided against Drupal as requiring more technical expertise than we had available in house. Through consideration of various criteria to determine the applications' suitability to our needs and trial and error, we ended up using WordPress to create the new website. Criteria that helped guide our decision included staff requirements, learning curve, internal institutional support, CMS user community, time to implement the new site, hardware and software requirements, and cost.
Conclusions: A locally hosted WordPress site was the best choice for the University of Southern California Wilson Dental Library based on our criteria, but other libraries will likely make other decisions based on the most important criteria for their environments.

4:05 p.m.
Converting an Intranet Site to the Cloud: Using LibGuides to Refresh a Library Portal
Melissa L. Rethlefsen, AHIP, Education Technology Librarian, Learning Resource Center, Mayo Clinic, Rochester, MN; **Leah Osterhaus,** Librarian, Franciscan Skemp Health Sciences Library, Mayo Clinic, La Crosse, WI; **Ann Farrell,** Librarian, Winn Dixie Foundation Medical Library, Mayo Clinic, Jacksonville, FL; **Karen Larsen,** Librarian; **Dana Gerberi,** Librarian, Colonial Library Services; **Vladana Gajic-Zoric,** Library Specialist, Venables Health Sciences Library; **Wanda Elkharwily,** Library Specialist, Plummer Library; Mayo Clinic, Rochester, MN
Objective: To use LibGuides to revitalize an Adobe Contribute-based library intranet website.
Methods: After undergoing a major redesign project in 2002, the library's heavily used intranet portal remained workable, utilitarian, and largely static. Because the intranet operates through Adobe Contribute, using templates maintained outside the library, library staff were unable to make substantive design changes or introduce tools like really simple syndication (RSS) feeds and Javascript widgets that would make the content more dynamic. LibGuides offered a solution: a web-based system with flexibility, customizable layouts and design, an easy-to-use interface for content creators and editors, built-in widgets for RSS feeds and scripts, a more visual experience for library patrons, XML files to load into our intranet search engine, and the opportunity to connect with other libraries. A task force was formed to establish local design and style guidelines, as well as to plan for the conversion of intranet site content to LibGuides, while providing for seamless integration with remaining library intranet content. Converting intranet site content to LibGuides gave the task force the opportunity to examine current site content and reimagine and revitalize it.

Federal Libraries Section

Rethinking Our Value: Determining Return on Investment (Part 2)

Cosponsored by Library Marketing SIG

Minneapolis Convention Center, Room 101F/G, Level One

3:05 p.m.
New Roles Bring New Value: A Case Study in Listening to Customers and Creating Solutions
Terrie R. Wheeler, Chief, Information and Education Services Branch, NIH Library, National Institutes of Health, Bethesda, MD
Objective: To listen to customer needs and design products and services that are vital to customer base. This brought the library from the brink of closure in 2007 to being awarded the 2009 Federal Library of the Year Award in the Small Library Category in October 2010.
Methods: Library staff established listening posts to hear customer needs, then introduced a citation database, citation management system, and customized products that included developing and submitting metrics for the organization's balanced scorecard, providing research impact analyses to help program leaders objectively demonstrate the value of their science programs, and creating publication strategies to aid scientists in finding the best places to publish and bring recognition to the work of the institute. Innovative reference services were introduced that support legally required animal protocol searches and include current awareness systems that keep scientists abreast of new developments based on reference staff's in-depth understanding of their proposed protocols. Customers began expecting real solutions to a variety of issues or needs from the library, viewing the librarian as a colleague with collaboration potential.
Results: These new products and services made the library invaluable. Customers soon desired library assistance for other questions beyond traditional library information. Customers now consult the library for objective data regarding their programs for oversight or annual reviews, and individual scientists began requesting genetic information services. The library director was appointed to the institute's infectious disease task force to envision the future infectious disease center of excellence. To help the organization realize its strategic goal of increasing mission awareness and collaboration in the scientific community, the library took on a project developing profiles for scientists to include in their publications. Links to these profiles will reside in a major commercial database with each publication record, increasing collaboration potential.
Conclusions: Creating products or services because other libraries are doing so may not be the best answer. Find out what your customers need, and rethink or develop products and services they will value.

3:25 p.m.
The Health Sciences Executive Research Service: Demonstrating Value to Nontraditional Clients
Whitney A. Townsend, Liaison Services Librarian; **Judith Smith,** Liaison Services Librarian; Taubman Health Sciences Library, University of Michigan–Ann Arbor

Objective: To forge strong relationships and build valuable partnerships by providing information services to executive officers and administrators in the health sciences at an academic institution.
Methods: Our health sciences library launched its Health Sciences Executive Research Service (HS-ERS) in May 2009 to provide information services to a targeted group of executive officers in the university health system; the medical school; the schools of nursing, public health, and dentistry; and the college of pharmacy. This paper will detail the process of creating the HS-ERS, present the current marketing strategy, provide an analysis of information requests, and discuss the immediate and future outcomes of providing information services to a targeted, specialized group of clients. A special emphasis will be placed on the new and emerging partnerships and projects that originated from HS-ERS requests and activities.
Results: A tiered list of executive officers to be targeted as potential clients for the HS-ERS was finalized, and marketing materials were distributed. Requests came in to the service primarily through individual contact from the clients or their administrative assistants. Requests ranged from simple article requests to complex information needs that required interdisciplinary collaboration with colleagues from the engineering and business administration libraries.
Conclusions: Overall, HS-ERS requests were filled quickly and to a high level of client satisfaction. Our services have been recommended to other key contacts in the health system. The collaborations that resulted from many of the requests led to opportunities for cross-training among library staff, connections with nontraditional partners in campus business and enterprise endeavors, and development of a resource clearinghouse for HS-ERS clients and partners.

3:45 p.m.
Rethinking Services: A Tailored Response to Copyright Highlights Library Value
Beth Layton, AHIP, Director; **Amber Repp,** Reference Image Assistant; **Rienne Johnson,** Reference Librarian; Library, Northeastern Ohio Universities Colleges of Medicine and Pharmacy–Rootstown
Objective: The library responded to the university mandate regarding copyright concerns, especially using permissible images in course materials. The solution includes creating specialized reference and permissions services, determining and documenting best processes, and educating faculty and administrative staff through presentations and the library website. Faculty and educational support personnel are enthusiastic about the solution that highlights librarians' unique skills.
Methods: The library approached this need systematically. Prior to this service, faculty and administrative staff spent considerable time looking for images and image citations and were often not successful. The specialized reference service relieves faculty and staff of this burden and means that students can view the images at their point of need. The library staff also requests permissions for images and has become expert in managing this service. Information made available through presentations and the library website may also save faculty and staff time. A survey will determine the percentage of faculty impacted by this program, what aspects of the program they use, and their perceived value of the service.
Results: A formal survey will assess the effectiveness of information on the website, evaluate the usefulness and value of the service, and provide data to shape further initiatives.
Conclusions: The image/copyright service is a specialized service that allows faculty and staff to focus on teaching and research and provides needed instructional support. Initially, the need for this service was uncovered during discussions with key faculty. Early on, the assessment of the service consisted of activity counts. The formal survey will better document perceived value and provide data for improving services.

4:05 p.m.
Library Roles in Creating Scholarly Metrics for Researchers and Research Funding Organizations
James King, Information Architect, NIH Library, National Institutes of Health, Bethesda, MD; **Terrie R. Wheeler,** Chief, Gorgas Memorial Library, Walter Reed Army Institute of Research/Naval Medical Research Center, Silver Spring, MD
Objective: Libraries are in a time of tremendous change, but if we are brave enough, we can step into the gap and apply our librarian and information professional skills in new ways to meet changing needs. One growing need for research-focused organizations is to critically analyze and measure the quality of research being performed.
Methods: This presentation will explore various ways that the impact of research can be measured and provide some practical examples of how it is currently being done.
Results: Though the review has not been completed, existing information has examples from a medical research granting agency and two military research organizations, one medical focused and one physics focused.
Conclusions: The authors already feel that there is a clear role for libraries in being an objective source for evaluative information on researchers, work groups, and the research organization as a whole. This can take the form of a balanced scorecard response or an internal publications database, utilizing self-service tools from Elsevier and/or Thomson-Reuters or creating custom evaluative databases combining internal grant information with publication lists from PubMed, Web of Science, and Scopus.

Health Association Libraries Section

The Role of the Librarian in the Systematic Review Process

Cosponsored by Corporate Information Services Section, Institutional Animal Care and Use SIG, Medical Library Education Section

Minneapolis Convention Center, Room 101I, Level One

3:05 p.m.
Lead, Follow, or Get Out of the Way: Teaming up with Nursing Faculty to Research, Write, and Publish Systematic Reviews
Kimberly J. Whalen, Assistant Professor, Library Services, Christopher Center Library, Valparaiso University, Valparaiso, IN
Objective: This paper describes the lessons learned by a new health sciences librarian who partnered with nursing faculty to research, write, and publish a systematic review.
Methods: The author, then a new science and business librarian at a regional campus of a public university, teamed up with an associate professor of nursing to publish a systematic review that analyzed the reliability, validity, and feasibility of tools used to screen for caregiver burden and strain. After an extensive global search of databases including CINAHL, EMBASE, and MEDLINE and a search of the gray literature, the librarian and nursing professor both reviewed more than 1,660 abstracts and together decided to retrieve 227 full-text studies. The Joanna Briggs Institutes' System for the United Management,

Assessment and Review package was used to appraise the final 112 studies included in the review.
Results: The systematic review, published in 2009 in the Joanna Briggs Institute Library of Systematic Reviews, proved to nursing faculty that a librarian can be an equal partner on a systematic review team. Nursing faculty now turn to the librarian for advice on their own literature searches, and they actively recruit the librarian to work on their systematic review teams. Being able to speak from experience about systematic reviews also adds to the credibility of the librarian among the undergraduate and graduate nursing students.
Conclusions: Taking a leadership role on a review team that evaluated a clinical topic proved to be both a challenge and a triumph. Both positive and negative lessons learned will be discussed.

3:21 p.m.
Beyond Searching: Practical Advice for Increasing Your Role in Systematic Reviews
Sarah L. Greenley, Information Specialist, BMJ Evidence Centre, BMJ Publishing Group, Beverley, East Yorkshire, United Kingdom
Objective: This case study brings together a decade of experience from an information specialist (IS) team supporting systematic reviews, guidelines, and evidence surveillance. While the primary role of the librarian is to identify relevant studies, this paper explores expanded roles including review planning, critical appraisal, search filter validation, and data checking and suggests strategies for increasing librarian participation.
Methods: As this IS team supports an expanding range of systematic reviews and evidence surveillance across hundreds of regularly updated topics, over time, the processes have been redesigned to improve efficiency while remaining systematic and transparent. As well as insight into the requirements of a search, involvement in early stages of protocol planning can supply a reality check on the scope and likely size of results and highlight inconsistencies in approach and reduce later complications. Search results can be collected in a way that facilitates efficient updating, and bibliographic management tools can supply prompts for critical appraisal in bespoke styles. Performing critical appraisal of abstracts gives a deeper insight into medical conditions and relevant study designs, which feeds back into search strategy design, demonstrates wider skills of librarians, and releases time for authors and editors. Subsequently, librarians can check adherence to protocols.
Results: Increasing IS involvement in the process of producing evidence-based reviews has enabled the department to expand the range of products it produces, while maintaining a rigorous approach to evidence identification. Performing critical appraisal on all search results and identifying errors frees up time for authors and editors to concentrate on summarizing the evidence. On a professional level, developing, validating, and publishing search strategies and using an evidence-based approach to service redesign has increased the visibility of the IS team internally and externally, and the expanded role of the librarian has opened up new professional opportunities.

3:37 p.m.
Leveraging Librarians' Skills in Searching and Critical Appraisal in a Systematic Review Collaboration
Rebecca Jerome, Program Director; **Rachel Walden,** Librarian, Eskind Biomedical Library; **J. Nikki McKoy,** Assistant Director; **Melissa McPheeters,** Co-Director; **Katherine Hartmann,** Co-Director, Evidence-Based Practice Center; **Nunzia B. Giuse, AHIP, FMLA,** Assistant Vice Chancellor, Knowledge Management; Director, Eskind Biomedical Library; and Professor, Department of Biomedical Informatics and Department of Medicine, Knowledge Management and Eskind Biomedical Library; Vanderbilt University Medical Center, Nashville, TN
Purpose: To describe a collaboration with a federally funded team of clinicians, epidemiologists, and other scientists in the design and execution of comparative effectiveness reviews on a range of health topics.
Participants/Setting/Resources: A large academic medical library with a proven track record in integrating librarians with extensive skills in critical appraisal and synthesis of the medical literature.
Brief Description and Methods: Due to the library's strong infrastructure of training and reputation for successful integration with a range of clinical and research teams at this institution, the library was approached to collaborate with a multidisciplinary team in seeking and securing federal funding to form a center for systematic review work. As pivotal members of this team, librarians work in a variety of functions, including developing comprehensive literature searches, assessing abstract and article relevance, extracting study data into evidence tables, quality scoring, and contributing to the reports' methods sections.
Results/Outcome: Feedback from the project team indicates librarians are valued team members and deliver consistently high-quality work. As the librarians have grown in this collaboration, their involvement has also recently expanded to include authoring other sections of the reviews.
Conclusions: This close collaboration on a range of review projects has allowed the librarians to continue to apply and further develop skills in literature searching as well critical appraisal and synthesis of research, providing key contributions to a range of tasks in conducting large systematic review projects.

3:53 p.m.
Librarians as Members of an Interdisciplinary Team Conducting a Systematic Review of Pharmacists' Impact on Direct Patient Care
Jennifer R. Martin, Assistant Librarian; **Sandra S. Kramer,** Assistant Director, Services; Arizona Health Sciences Library; **Marie A. Chisholm-Burns,** Professor; **Jeannie K. Lee,** Clinical Assistant Professor; **Christina A. Spivey,** Research Coordinator; **Marion K. Slack,** Professor; **Richard N. Herrier,** Clinical Professor, Department of Pharmacy Practice and Science; The University of Arizona–Tucson
Objective: To describe librarians' participation in an interdisciplinary team and in the creation of search methods to conduct a comprehensive systematic review to determine the value and impact of pharmacists on direct patient care.
Methods: Two librarians who are liaisons to a college of pharmacy were recruited as part of an interdisciplinary team to conduct a systematic review of the value and impact of pharmacists on direct patient care in the United States. The team consisted of pharmacy faculty, nurses, physicians, social scientists, and librarians. In consultation with the team, who provided key search terms, the librarians developed several search strategies for thirteen different databases, including PubMED, OvidSP/MEDLINE, ABI Inform, Health Business Fulltext Elite, Academic Search Complete, International Pharmaceutical Abstracts, PsycINFO, Cochrane Database of Systematic Reviews, National Guideline Clearinghouse, DARE, ClinicalTrials.gov, LexisNexis, and Google Scholar. In addition to database searching, key articles recommended by the team were also included, and their citations were manually reviewed for inclusion. The initial search was repeated at three- and six-month intervals to include articles published up to January 2009.
Results: A total of 56,573 articles were identified from the database searches. The librarians excluded any foreign studies,

duplicate references, book chapters, letters, editorials, and meeting abstracts. After excluding these items, the team conducted another exclusion assessment and eliminated items that did not meet study inclusion criteria including (for example, studies that did not address pharmacy-related outcomes). Items identified for review after the complete exclusion process totaled 298 articles. Outcomes identified by the team included therapeutic, safety, humanistic, and economic implications.
Conclusions: As collaborators on an interdisciplinary team, librarians successfully demonstrated their expert knowledge of the literature search process. The librarians were central to the success of the systematic review. Key to this success was the inclusion of librarians in all aspects of planning and executing the search process.

4:09 p.m.
Development of a Collaborative Web-based Terminology Database, a Resource for Comprehensive Search Preparation
Ahlam Saleh, Reference Librarian; **Melissa Ratajeski,** Reference Librarian; **John LaDue,** Knowledge Integration Librarian; Health Sciences Library System, University of Pittsburgh, Pittsburgh, PA
Objective: Requests for comprehensive searches such as systematic reviews appear to be evolving into a more routine part of practice in the health sciences library environment. Collecting terminology for these searches is often a time-consuming process and could be made more efficient. We present the development of a searchable web-based repository for aggregating and sharing biomedical terminology.
Methods: The web-based terminology database was created using MySQL and PHP and resides on the University of Pittsburgh's Health Sciences Library System's (HSLS's) server. The database includes a form for entry of collected keywords, Medical Subject Headings, search strategy statements, and search tips. Usability testing was employed as an iterative process, with feedback gathered from librarians from HSLS and other institutions across the country. Feedback was used to guide further development of the database.
Conclusions: Future plans include the migration of the database to an open access environment where other information professionals could contribute and benefit from access to the database.

Leadership and Management Section

Case Studies on Rethinking Services, Space, Resources, and Roles

Cosponsored by Collection Development Section, Corporate Information Services Section, Veterinary Medical Libraries Section

Minneapolis Convention Center, Room 101A, Level One

3:05 p.m.
The Embedded Librarian: Rethinking Staffing Models in Health Sciences Libraries
Dagmara Chojecki, Research Librarian, Institute of Health Economics; **Trish Chatterley,** Public Services Librarian, John W. Scott Health Sciences Library; University of Alberta–Edmonton, Canada
Objective: This paper examines and discusses the creation of a unique staffing model whereby librarians hold joint positions between an academic university library and another health research organization.
Methods: A large university research library has formed cross-appointments in partnership with a number of local research institutes. The librarians spend 80% of their time in embedded roles serving researchers and staff outside of a traditional health sciences library environment. They have various responsibilities, from conducting extensive searches and managing projects to editing publications and leading evaluation activities. The other 20% of their time is given to the university library, engaging in the more conventional activities of teaching, collection development, reference provision, and library research activities. This paper describes the development and functioning of this model as well as the challenges and benefits encountered.
Results and Conclusions: Five such positions have been created, and several have been in place for many years. The embedded librarian model has allowed the university library to develop strong relationships with external organizations and has generally helped to promote the high level services of health sciences librarians. The librarians themselves benefit from the expertise, interaction, and training accessible through a university library system that would be unavailable to them in otherwise commonly solo librarian positions in research institutes. An evaluation of this program is forthcoming.

3:25 p.m.
Re-thinking the Harrell Health Sciences Library: Retirements, Resignations, Reorganization, and Recruitment as Opportunities for Transformation
Cynthia K. Robinson, AHIP, Director, George T. Harrell Health Sciences Library, Penn State Hershey, Hershey, PA
Objective: To describe and discuss the opportunities presented when faced with multiple staff and faculty retirements and resignations occurring during a period of intense change.
Method: Considerable discussion has taken place in the library literature about the upcoming wave of retirements in the library field and how this will impact libraries during this period of profound and far-reaching change. This case will describe the experience of the Harrell Health Sciences Library (HSL) as the library grappled with four retirements and four resignations, half the existing staff of sixteen, within a fourteen-month period of time, and the opportunities this kind of staff turn-over presents. The library has been experiencing a period of intense change. Loss of space, renovation of the remaining space, and the conversion from a print-based collection to a digital collection have all had a profound effect on services, space, resource management, and perceived roles. The turn-over in faculty and staff has allowed the library to reorganize relationships and the reporting structure within the library; review existing salaries and positions (vacant) leading to the repurposing of dollars to fund new faculty positions with urgently needed skills; and the opportunity to completely re-imagine roles and duties within existing vacant positions.
Results: The Harrell HSL is recruiting faculty and staff with new skill sets needed to continue to move the library forward. New hires include an associate director/coordinator for education and instruction, the librarian for collection development and digital resource management, an early-career reference librarian, and a librarian for knowledge integration and emerging technologies.
Conclusions: The Harrell HSL has embraced the opportunity to re-think its identity for the future, transforming itself in the process. This case study will highlight approaches taken, what worked, what didn't, barriers encountered, offer useful advice, and report on outcomes.

3:45 p.m.
The Role of the Academic Medical Center Library in Support of Online Learning for both the Academic and Health Care Enterprises
Catherine E. Delia, Online Learning Systems Manager, Medical Center Libraries and Technologies; **Julia F. Sollenberger, AHIP, FMLA,** Associate Vice President and Director, Medical Center Libraries and Technologies; **Mike Bell,** Assistant Dean, Information Technology, River Campus Libraries, and Assistant Director, Information Technology, Medical Center Libraries and Technologies; Edward G. Miner Library, University of Rochester Medical Center, Rochester, NY
Objective: Find new ways for the library to create value for the institution by supporting online employee education: to improve staff workforce skills and comply with regulatory education requirements.
Description: With its focus on customer service, its commitment to finding technology-based solutions, and its history of involvement in education initiatives, the library is uniquely positioned to make a difference by supporting online learning in the academic medical center. The library has managed online learning for 10 years. It started as a tool for academic courses, but with increased attention on compliance with government regulations, extending the library's online learning efforts beyond academic course support to hospital and employee training was a natural direction. The library manages the learning management system (LMS) and the software solution to transfer course completion data from the LMS to the human resources management system. Additionally, the library hired a full-time instructional designer to support subject matter experts in designing and building effective online learning modules. Over 10,000 employees have used the system to complete more than 100,000 training modules, and library-supported online learning has become a vital part of the academic and the patient care enterprises.
Conclusion: The employee training program continues to expand, and as the more people use it, the more people want to use it, thus continuing to place the library at the center of a valuable service to the institution.

4:05 p.m.
Millennial Medical Libraries: Library and Information Services for New Medical Schools
Keith Cogdill, AHIP, Director, South Texas Regional Information Services, Health Science Center, University of Texas–San Antonio; **David Boilard, AHIP,** Director, Medical Library, Florida International University–Miami; **Nadine Dexter, AHIP,** Director, Ginsberg Health Sciences Library, University of Central Florida–Orlando; **Rebecca Ruddock, AHIP,** Unit Associate Director, Delia Montes-Gallo Library of the Health Sciences, Texas Tech University Health Sciences Center–El Paso; **Barbara Shearer, AHIP,** Director, Maguire Medical Library, Florida State University–Tallahassee; **Richard Wood,** Executive Director, Smith Library of the Health Sciences, Texas Tech University Health Sciences Center–Lubbock
Objective: In the past ten years, several new medical schools have opened or are being planned across the United States. This presentation summarizes findings from a comparative study of libraries serving four new schools of allopathic medicine, focusing on issues related to institutional administration, staffing, space, collections, and services.
Methods: Semi-structured interviews were conducted with library leadership and selected staff at four libraries serving new or newly independent medical schools. Two schools were completely new, one built on its experience providing the first year of the medical curriculum for another university, and one built on its experience as a regional campus providing the third and fourth years of the curriculum. The interviewer transcribed and coded all interviews for emergent themes. The directors of the libraries serving the four schools were given the opportunity to review and amend each transcript. The questions that guided all interviews addressed (1) institutional administration (reporting lines and funding structure), (2) staffing within the library, (3) space and physical design of the library, (4) collections, and (5) instruction and other library services.
Results: Most noticeably at schools that did not begin as a regional campus, there was a need for the library to respond rapidly to the nascent organization and the evolving curriculum. Compared to more established academic health sciences libraries, libraries serving new schools have fewer staff overall and a larger proportion of professional librarians. While these libraries occupy smaller spaces, there are clearly identifiable uses of the library as place. The collection of resources at these libraries is predominantly electronic, with the negotiation of licenses and the maintenance of links as prominent responsibilities for professional and support staff. Among these new medical schools, there is an emphasis on information technology and informatics education.
Conclusions: Findings from these interviews are informative for the development of libraries at other new medical schools, and they may inform planning at established libraries.

Pharmacy and Drug Information Section

Changing Pharmacy Education

Minneapolis Convention Center, Room 101H, Level One

3:05 p.m.
Changing Pharmacy Education
Rodney Carter, Associate Dean, Professional and External Relations, Department of Pharmaceutical Care and Health Systems, University of Minnesota–Minneapolis

Public Health/Health Administration Section

Health Policy Changes and the Role of Libraries and Librarians in Response

Cosponsored by Health Association Libraries Section; Lesbian, Gay, Bisexual, and Transgendered Health Science Librarians SIG

Minneapolis Convention Center, Room 101B, Level One

3:05 p.m.
Roles for Librarians in the Changing Landscape of Federal Grants
Valerie Florance, Associate Director, Extramural Programs, National Library of Medicine, Bethesda, MD

3:25 p.m.
New Roles for Health Sciences Librarians: Collaborating on Health Communications Research at the National Institutes of Health
Janet Heekin, Informationist, NIH Library, National Institutes of Health, Bethesda, MD
Objective: This case report describes a research project between a health sciences librarian and a health media researcher at the National Institutes of Health (NIH) National Institute on

Alcohol Abuse and Alcoholism (NIAAA), in which the authors conducted a content analysis study. The purpose of the study was to conduct quantitative and qualitative analysis of popular press coverage of an NIAAA report and health initiative, *A Call to Action: Changing the Culture of Drinking at U.S. Colleges*. This case study demonstrates how librarians can combine knowledge of social sciences research methods with specialized skills in developing search strategies and database searching.
Methods: Searches were conducted on the NEXIS US Newspapers and Wires database of 879 newspapers and wire services. The authors collected all news stories published immediately following an NIAAA press release on March 16, 2002, through December of 2006 published in a convenience sample of US newspapers and wire services that cited at least one key finding from the report. For the first part of the analysis, authors used an analytical method known as content analysis. After the data were categorized, the authors used grounded theory method to look for emergent themes and how those themes changed over time.
Results: The findings were analyzed and incorporated into a report to the NIAAA External Advisory Board, which was conducting a five-year review of the institute's strategic goals.
Conclusions: This case study demonstrates the wide range of possibilities for collaboration between librarians and health researchers, and that such relationships are mutually beneficial to the collaborators, as well as to health sciences research at large.

3:45 p.m.
MedlinePlus Connect: Opportunity for Librarians to Bring Patient Information into Organizations Responding to the Health Information Technology for Economic and Clinical Health (HITECH) Act
Joyce E. B. Backus, Deputy Chief, Public Services Division, National Library of Medicine, Bethesda, MD

4:05 p.m.
Investing in America's Public Health Workforce: Shaping New Roles for Librarians
Elaine Russo Martin, Director, National Network of Libraries of Medicine, New England Region; **Karen Dahlen, AHIP,** Project Consultant, Lamar Soutter Library, Medical School, University of Massachusetts–Worcester; **Javier Crespo,** Associate Director, National Network of Libraries of Medicine, New England Region; Lamar Soutter Library, Medical School, University of Massachusetts–Shrewsbury
Objective: This study, conducted in six states, addresses inadequate information access by the public health workforce. Objectives were to: (1) identify trusted electronic resources for testing, (2) provide access to and training on identified resources, (3) improve article delivery, (4) analyze use of resources in relationship to work, and (5) document process change in participating organizations.
Methods: A ten-year literature review was conducted on public health workforce information needs, training issues, and barriers to information access. Site visits confirmed the need for trusted full-text resources to support policies, practices, and interventions. A survey identified journal subscription and cost information purchased by individuals or units. An initial training meeting was held for key leaders from public health departments to reinforce objectives, acquaint participants with project staff, and present the resources. A digital library web page, designed to streamline resource access through Internet protocol (IP) authentication, was installed on public health department intranets. Participating vendors were selected based on content of databases, format, and willingness to modify license agreements. Onsite hands-on trainings were held. A subset of state, public, hospital, and academic libraries was formalized for article delivery. Data and feedback collection instruments were designed and administered for project evaluation.
Results: PubMed and licensed resources, available through IP authentication and installed on department intranets, are now being used by public health professionals in six states. Evaluation components include self-reporting, statistics on resource use, collection of data through pre- and post-training surveys, and information captured in email communications. A process has been developed to add new resources based on initial assessment and ongoing use of journals made available.
Conclusions: Public health departments are using the digital resources made available through this project to improve community assessment programs, facilitate comparative effective research, prepare legislative reports, and provide expert testimony.

Section Council

Rethink Technology (General Topic Session)

Cosponsored by Educational Media and Technologies Section, Medical Informatics Section

Minneapolis Convention Center, Room 101D/E, Level One

3:05 p.m.
Rethinking Patient Education: A Sitemaker Data-access Website Helps to Streamline and Improve Patient Education at the University of Michigan Health System
Ruti Volk, Patient Education Librarian, University of Michigan Health System–Ann Arbor
Objectives: Patient-education at the University of Michigan Health System (UMHS) is not centralized. This led to wide variations in quality, duplication of efforts, and outdated materials. The organization needed a solution to facilitate access to all patient-education materials created and used by clinicians at the UMHS. The goals were to increase resource sharing and improve the quality and currency of materials.
Methods: A web-based database called "The Patient Education Clearinghouse" was created with Sitemaker, an open source website creation and management application. Site users can choose between a simple search with a keyword or a topic, or an advanced search interface that enables more complex searching and combining fields such as format, language, department, population, and year of publication. The system includes a submission, review, and approval process to ensure that only materials that meet specific quality guidelines are included. Dedicated sections for specific departments increase the speed of retrieving documents and can be embedded in departments' intranet sites. The data-access site also helps managers maintain a consistent review and update schedule for their documents. The patient-education managers' interface enables keeping track of authors and reviewers, and searching for materials by publication and revision dates.
Conclusion: The clearinghouse facilitates sharing documents between departments and ensuring that clinicians use materials that have been pre-approved by relevant committees and clinics. More than 10 sections that provide access to subsets of documents have been created. A special section for the cancer center assists in managing the update and review process of over 300 documents. Many existing documents have been improved to meet the selection criteria. Marketing the clearinghouse to patient education managers and educating staff to use it proves to be the biggest challenge.

3:25 p.m.
Hacking into the World of Web 3.0
Sharon Lee, Graduate Student, Health Informatics Program, University of North Texas–Denton
Objective: To provide an in-depth study of Web 3.0 technologies based on a literature review, to identify and explore existing entities that offer Web 3.0 technologies, and to present a prototype of an academic library website that incorporates Web 3.0 technologies.
Methods: A literature review from 1996 to 2010 of Web 3.0 technologies was conducted. A search using various search engines was performed to identify entities offering Web 3.0 technologies. A literature review was then carried out to pinpoint scholarly assessments of the entities. A prototype of an academic library website incorporating Web 3.0 technologies was created using web development applications.

3:45 p.m.
Rethinking Ways to Provide Library Services to Rural Clinicians
Rick Wallace, AHIP, Assistant Director; **Nakia Cook, AHIP,** Clinical Reference Librarian; Quillen College of Medicine Library, East Tennessee State University–Johnson City
Objective: The purpose of this study was to analyze an ongoing project centered on satisfying basic clinical information needs of rural clinicians who work in hospitals without libraries or librarians by providing personal digital assistants (PDAs) equipped with clinical information databases augmented with full-text Loansome Doc delivery. Three projects have been instituted since 2006, in which 330 PDAs were distributed with training.
Methods: This was a qualitative study that primarily involved individual interviews of participants in one of the three projects. Interviews were recorded and transcribed, and themes were analyzed. The process continued until data saturation was achieved.
Results: Much information has been discovered about the value of the services provided and what can be done to better address clinician information needs. Data collection is ongoing.
Conclusions: Medical librarians, particularly those in academic centers, must reach out and find new ways to enable rural clinicians to stay current with the explosion of new biomedical information.

4:05 p.m.
Rethinking How Patrons Discover Information: Implementing a Discovery Tool
Elizabeth Ketterman, Collection Development and E-Resources Librarian; **Megan E. Besaw,** Liaison, College of Allied Health Sciences; **Michael Tucker,** Application Support Analyst; Laupus Health Sciences Library; East Carolina University, Greenville, NC
Objective: The libraries, like most academic libraries, use various tools for searching our collections: the online public access catalog (OPAC), the institutional repository, locally developed databases, and subject-specific article indices. Each of these collections requires their own search interfaces and strategies. To better serve our patrons, the libraries wanted a way to perform a comprehensive search of these collections from one place.
Methods: The libraries formed a task force in January 2010 to explore two questions: (1) Were we ready to implement a discovery tool? (2) If so, which tool currently on the market best met our patrons' needs? The task force demonstrated three tools to the libraries: Ex Libris' Primo Central, the EBSCO Discovery Service, and Serials Solutions' Summon. By May, a decision was made to move forward with Summon. The implementation process and usage statistics of the Summon tool at the university are examined in this case study.
Results: Upon review of usage statistics from the launch date, we have seen steady usage. Statistics show a trend in increased OpenURL linking since implementation of Summon. We have found the addition of a discovery tool beneficial in the exposure of our library's collections.

Poster Session 1
Sunday, May 15, 2:00 p.m.–3:00 p.m.

Minneapolis Convention Center, Exhibit Hall A

1

Spiffin' Up Information Services: Using LibGuides to Empower Users

Lee A. Vucovich, AHIP, Assistant Director, Reference Services; **Patricia C. Higginbottom, AHIP,** Associate Director, Public Services; **Susan C. Smith,** Reference Librarian; **Emma O'Hagan,** Reference Librarian; **Nicole Mitchell, AHIP,** Reference Librarian; Lister Hill Library of the Health Sciences, University of Alabama–Birmingham

Objective: To share the experience of an academic health sciences library that employed LibGuides (tagline: "The easiest way to publish research information in a Web 2.0 world") to revitalize library pathfinders, tutorials, and liaison web pages with interactive content, including embedded library chat boxes, video demonstrations, and search box widgets.

Methods: With the planned redesign of the library's website, librarians opted to revamp existing pathfinders, liaison pages, frequently asked questions, and video tutorials using LibGuides. Using the many box templates and collaborative features included with this content management system, five librarians went from purchasing the software to publishing the first guides in just seven weeks. The implementation process included designing the site, choosing what subject matter to convert and how to present it, developing standards, collaborating on content, creating custom templates for reuse, getting feedback from end users, and linking the guides at point of need. In 2010, thirty-four guides were created and librarians continue to collaborate on new ones.

Results: There were 15,794 "guide hits" for 26 guides available during fall semester. Monthly statistics for 7 representative guides were compiled that showed monthly variations in usage, but no clear trends. User feedback forms were rarely used, so an annual assessment is planned.

Conclusions: LibGuides have offered a novel approach to complement library instruction sessions, to replace static information pathfinders, to promote liaison services, and to provide point-of-need, visual instruction in both chat and email reference encounters. University faculty members continue to request new guides for both individual and recurring class assignments as well as specific academic departments and programs.

4

Are UK Hospital Libraries the Missing Link?

Sarah Sutton, Clinical Librarian, Clinical Education, University Hospitals, Leicester, United Kingdom

Objective: To see if hospital librarians have an impact on the uptake of access to electronic information (databases, books, and journals) purchased by the National Health Service (NHS) in the United Kingdom. Membership statistics for the access scheme to the NHS electronic information (NHS Athens) reveal that a high percentage of junior doctors in the United Kingdom are members, compared to a much lower rate in those working in the community. Hospital doctors have easy access to health libraries and librarians compared to their colleagues in the community. Is the influence of the health librarians the missing factor in the difference in uptake?

Methods: A questionnaire was emailed to all the junior doctors in a large NHS acute hospital trust who had registered to access NHS password-protected electronic resources (NHS Athens) asking them how they found out about the scheme in the first instance. This was compared to the national registration figures for junior doctors and those for doctors working in general practices and in the community.

Results: Eighty-five of the doctors who responded to the questionnaire found out about NHS Athens via a librarian or the library, that is 78% of 109 respondents. There are 969 junior doctors at our trust, and we got responses from 11%. Of those 969 doctors, 757 have NHS Athens accounts, a rate of 78%.

Conclusions: The number of junior doctors with an NHS Athens account in England is 39,120, and the total number of junior doctors working in English NHS hospitals is 52,803. So 74% of the junior doctors have NHS Athens accounts. There are 40,269 general practitioners (GPs) in England, of those 8,566 have NHS Athens accounts, 21% of the total number of GPs working in England. NHS GPs have less access to libraries and librarians in their place of work or nearby, and we believe this explains the lack of GPs registered for NHS Athens.

5

Rethinking Delivery of Consumer Health Information: Health Info To Go! A Collaborative Project

Kim Granath, AHIP, Public Health Librarian, Maureen and Mike Mansfield Library, The University of Montana–Missoula; **Cara Cadena,** Reference Librarian, Missoula Public Library, Missoula, MT

Objective: Health Info To Go! is a joint project by the university library and the public library. Its purpose is to create more confident, knowledgeable online searchers. Community members learn to effectively find and search online health information and to discover local health organizations. As a result of their increased knowledge, users stay informed of current research in their topics of interest.

Methods: We developed and currently maintain a website, complete with a variety of quality health information resources, online learning tutorials, and our signature logo. We conduct computer classes in the public library's computer classroom, familiarizing patrons with the resources available from our website. With funds from the National Network of Libraries of Medicine (NN/LM), Pacific Northwest Region (PNR), Technology Improvement Award, we purchased equipment to develop a mobile reference system. Once summer began, we took our project on the road and provided a health information booth at the local farmer's market.

Results: We currently conduct classes on accessing and evaluating online health resources, and post-class scores have shown continued improvement in our patrons' knowledge of health information resources. When we staffed our booth at the farmer's market, people repeatedly told us that having the library at the farmer's market is "such a great idea!" With our equipment, visitors were able to take online health assessments and walk away with their results.

Conclusions: Health Info to Go! is a highly technological project. More than once during our outings, we heard about how "high tech" the library has become. The equipment purchased with funds from this award is quite impressive. Not only is it wireless, it is easy to use and a snap to set up. The large, high definition monitor literally turns heads. Our equipment and knowledgeable staff not only make the library look progressive, they showcase our savvy and outgoing librarians.

7

Rethinking Patient Education: A Large Health System Selects a Patient-education Product to Interface with the Electronic Medical Record

Ruti Volk, AHIP, Librarian; **Jean DuRussel-Weston,** Interim Director; **Lisa Schneider,** Project Facilitator; Patient Education, University of Michigan Health System–Ann Arbor

Objective: The Patient Education Strategic Planning Committee at the University of Michigan Health System (UMHS) was asked to recommend a patient-education product to interface with the electronic medical record in a new Epic system. To discover clinicians' needs and preferences, the committee sent out a survey asking all ambulatory-care providers to rate different features, topic categories, and characteristics of patient-education handouts.
Methods: The committee created a list of features such as: reading level below sixth grade, short one-to-two-pages-long handouts, comprehensive versions, additional languages besides English and Spanish, ability to brand materials, and ability to ask vendor to revise content. The survey also listed topic categories such as diseases and conditions, pre and post procedures instructions, medical tests, rehabilitation exercises sheets with illustrations, and prevention and wellness topics. Clinicians were asked to rate these features and topic categories by importance and indicate if the feature or topic category are essential to include, nice to have, or not important. Two open-ended questions asked respondents to suggest features not listed in the survey and provide additional comments. This poster will present the survey results and how the committee used them to evaluate the products and make a recommendation for a patient-education product.
Results: UMHS clinicians indicated that they must have access to two types of topic categories: rehabilitation exercise sheets with illustrations and pediatric handouts written by B. D. Schmitt. Clinicians also indicated that the ability to interact with the vendor to correct accuracies is essential. The ability to brand materials or use a product that is already familiar to clinicians in our health system were considered nice to have but not essential to most respondents. Using the same product on the public website, patient portal, in-patient, and across the continuum of care was essential to 67% or respondents. Only 13% of respondents thought color illustrations were essential, but 47% indicated black-and-white illustrations were. In narrative comments, the most frequent theme was the ability to integrate materials that were written internally. The survey results helped decision makers to prioritize features of the different products and were a key-factor in the decision-making process.

10

From Zero to Hero: Reinventing the Library's Annual Report
Jovy-Anne Rosario, Instructional Design Librarian; **Rie Smethurst,** Content Management Librarian; **Diana J. Cunningham, AHIP,** Associate Dean and Director; **Marta Ambroziak,** Access Services Supervisor, Health Sciences Library; New York Medical College–Valhalla
Objective: To outline the process of creating an informative and engaging online annual report.
Brief Description: Health library annual reports contain valuable information about the library's services, goals, and accomplishments but are rarely seen as sources for this type of information. This project, which is a part of the library's ongoing communications initiative, is focused on reinventing the annual report as an effective tool to promote the library's value amongst its stakeholders. The methodology combines the use of traditional and emerging technologies. This includes a qualitative survey of online annual reports from libraries, private corporations, and nonprofit organizations; an investigation of software applications for creating the report; interviews with students and faculty members; videotaping of professors as they teach classes; and a general demonstration of the tools used to successfully complete the report. As a result of this project, we anticipate an increased number of website visits and special members and an interest from stakeholders, notably senior college leaders. To determine the effectiveness of the report, web logs will be monitored and an online feedback form in the report will be included.
Results: The annual report went live on January 13, 2011. To ensure maximum exposure, we promoted it through email and the library's home page, blog, Twitter, and Facebook accounts. Using Google Analytics, we have captured information about the report such as number of views, length of time on page, and outbound destinations. We also met with the academic administration and the library advisory committee to discuss the report's effectiveness and usefulness.

12

Adoption of Web-based Video Sharing Sites by Libraries of the Association of Academic Health Sciences Libraries
Dean Hendrix, Coordinator, Education Services; **Alexis Alfasso,** Graduate Student; **Kerry Cotter,** Graduate Student; Health Sciences Library, State University of New York–Buffalo
Objectives: This study intends to determine the extent and nature of institutional use of web-based video sharing sites, such as YouTube, by full member libraries of the Association of Academic Health Sciences Libraries (AAHSL).
Methods: In August 2010, the investigators identified appropriate contacts at each institution; designed a survey to analyze academic health sciences libraries' use of YouTube, Vimeo, iTunesU, and other video sharing sites; and distributed it via SurveyMonkey. Forty-two libraries responded to the survey resulting in a 34% response rate (n=42/122). Respondents that indicated that their library had its own video sharing site (12%, n=5/42) were directed to questions regarding uses and future uses of video sharing sites, video creation, institutional support and policy, and promotional efforts. Respondents that indicated that their library did not have their own video sharing site (81%, n=34/42) were directed to questions that investigated reasons for not having such a presence.
Results: Respondents indicated the biggest uses of video sharing sites to be marketing efforts, the provision of virtual tours, and the promotion of library resources and services. Of the libraries without their own video sharing sites, 41% (n=14/34) reported that library staff had no time to set up or maintain, and 32% (n=11/34) revealed that they had never thought about using a web-based video sharing site for their libraries.
Conclusions: Due to the small number of libraries with their own video sharing sites, it is difficult to ascertain conclusive results on the uses of YouTube in health sciences libraries. The data indicate that health sciences libraries have not made video and screen capture services a priority.

16

Digital Storytelling: A New Media Tool for Engaging American Indians
Laura Bartlett, Technical Information Specialist, Specialized Information Services, National Library of Medicine, Bethesda, MD; **Brenda Manuelito,** Education Director and Co-Founder; **Carmella Rodriguez,** Instructional Designer and Co-Founder; nDigiDreams, Santa Fe, NM; **Judith L. Rieke,** American Indian Health User Group Coordinator, National Library of Medicine, St. Paul, MN; **Gale A. Dutcher,** Deputy Associate Director, Division of Specialized Information Services, National Library of Medicine, Bethesda, MD
Objective: American Indian Health (AIH) is an information portal dedicated to issues affecting health and wellness of American Indians. The National Library of Medicine (NLM) and the AIH User Group work collaboratively to apply best practices in bringing health information to this population. The latest

objective was finding new and unique ways to keep the portal relevant to users.
Methods: To enhance the portal and incorporate American Indian oral traditions, the AIH User Group and NLM developed a section, "Our Stories." User surveys and focus groups validated the idea. Stories available on the Internet were added, but the need existed for more focused stories. Research on constructing personal health stories revealed digital storytelling was an effective technique. These story bites bring health and wellness issues alive for storytellers and listeners. nDigiDreams was selected to train community members at a Minnesota reservation to create digital stories. A four-day workshop included reviewing elements of storytelling, story circle, and script writing; managing files, using storyboards, and gathering media; recording voice and producing mini-movies; and screening, evaluating, and disseminating the stories.
Results: The digital stories created average three to five minutes. They include the script in the storyteller's voice enhanced by photos, art, and music. The stories become personal cohesive units that bring "voice" to experiences. By writing, creating, and distributing the stories, their experiences become alive and bring life back into the truths, strengths, and ways that native people use to stay well. Many of the storytellers agreed to share their stories for educational purposes on AIH.
Conclusions: Digital stories are a meaningful and unique way to share health and wellness experiences. As a new media, they promote health, educate others, and can become effective advocacy tools. nDigiDreams works with rural and underserved American Indian communities to build local capacity to continue the production of digital stories beyond the initial training workshop. A backpack equipped with production tools was created as a portable means for creating future digital stories.

19

Sharing Our Experience: A Joint Practicum Between Two Academic Health Sciences Libraries

Rebecca Raszewski, AHIP, Assistant Information Services Librarian and Assistant Professor, Library of the Health Sciences, University of Illinois–Chicago; **Linda Ronan,** Assistant Director, Public Services; **Jonna Peterson,** Reference Librarian, Education Coordinator; Library of Rush University Medical Center, Rush University Medical Center, Chicago, IL; **Jennifer Kooy,** Graduate Student, Graduate School of Library and Information Science, Dominican University, River Forest, IL; **Carol Scherrer, AHIP,** Head, Information Services, and Associate Professor, Library of the Health Sciences, University of Illinois–Chicago

Objective: To offer a practicum that emphasizes public services at both a private and a public academic health sciences library for library school students.
Methods: In spring 2010, librarians at Rush University Library (a private institution) and Library of the Health Sciences, University of Illinois–Chicago (a public institution), collaborated in offering a practicum. This practicum would be an opportunity for a student to gain experience and an understanding of health sciences librarianship. The practicum was advertised on library school internship opportunity websites. Prospective candidates were interviewed by librarians from both institutions. Once the student was selected, the librarians met to determine what aspects of librarianship they would cover during the practicum. During the fall 2010 semester, the student spent sixty hours at each library, working two days a week. In addition to receiving training and meeting with library committees and departments, the student worked on projects at each library. The student summarized her experience throughout the practicum by writing up weekly reports. On the last day of the practicum, the student did a presentation for both libraries. This presentation summarized her experience and projects and made suggestions for improving the practicum and what each library could learn from each other.
Results: The joint practicum was deemed a success by both libraries and the student. The libraries will look into hosting another practicum student in the summer and/or fall 2011 semesters.
Conclusions: A joint practicum is an innovative way to introduce collaboration between health sciences libraries with different environments. A student gains a full semester's worth of experience, while the mentoring librarians are able to provide more quality time and attention to the intern due to the short six-week time span at each institution. Librarians will be able to mentor a library school student who will give them a fresh perspective on their workplace. The library school student will be able to network and gain valuable workplace experience for his or her future career.

22

Mitosis and the Life Cycle: A Metaphor for the Transformation of the Research Librarian

Sally A. Gore, Head, Research and Scholarly Communication Services; **Lisa A. Palmer, AHIP,** Institutional Repository Librarian; Lamar Soutter Library, Medical School, University of Massachusetts–Worcester

Objective: This poster describes how established and traditional library tools and services at an academic health sciences library served as the "nucleus" for new services and collaborations with university researchers.
Methods: The library at the University of Massachusetts Medical School (UMMS) formally established a research and scholarly communication services department in January 2009. The department currently comprises two librarians charged with overseeing four major areas: scholarly communication; integration of library services into the graduate school of biomedical sciences (GSBS) and the research community; the library's e-science initiative; and the university's institutional repository, eScholarship@UMMS. The department leveraged existing relationships with GSBS administration and faculty and created through work with eScholarship@UMMS and library services supporting the National Institutes of Health (NIH) public access policy, to build credibility, make new contacts, and get feedback on proposed new services.

25

Rethinking Online Tutorials: Using Software Simulation to Create More Interactive Tutorials

Anna Katherine Crawford, Information Services Librarian, Health Sciences Library, West Virginia University–Morgantown

Objective: Online tutorials demonstrating different aspects of database searching have become a common tool for librarians to help instruct users how to search. Many of these tutorials are online videos that show what is happening on the instructor's screen with narration or text boxes, but few include any kind of interactive features to increase active learning. The goal of this project is to create a PubMed tutorial that would include many interactive features to enhance active learning.
Methods: The professor of a public health course taken by all first-year medical students at West Virginia University requested an in-depth, online tutorial that he could insert in his curriculum that would focus on PubMed. After reviewing many online tutorials, it was decided to create a simulation of PubMed to make students interact with PubMed from within the tutorial. Adobe Captivate 4 was determined to be the best software option that would allow the most interactive features to be included in

the tutorial. The tutorial incorporates quizzes, interactive text boxes, and clickable and rollover areas to recreate the experience of searching PubMed.

26

Rethinking Engagement: Getting More Involved with Clients

Joey Nicholson, Lead Trainer, National Training Center and Clearinghouse, New York Academy of Medicine–New York; **Nancy Schaefer, AHIP,** Associate University Librarian, Health Science Center Libraries, University of Florida–Gainesville

Objective: This study investigates the short- and long-term effects on librarians of attending their patrons' professional association meetings.

Methods: Setting or Participants: Librarians serving public health workers, faculty, students, and researchers who have applied for partial funding to attend the annual meeting of the American Public Health Association (APHA) over the past nine years. A SurveyMonkey instrument of thirty questions was sent to librarians in the participant group. The survey collected both quantitative and qualitative information focused on the effect of partial funding on the likelihood of the librarians attending the meeting and the effects of attendance on their subject expertise and subsequent professional development and involvement with the groups they serve. The survey also solicited consent to participate in a fifteen- to thirty-minute follow-up telephone interview. Responses to the survey and interviews were compared with impression-papers written within a month of the meeting for short- and long-term effects of meeting attendance.

Results: While some stipend recipients have moved or been transferred from public health since attending the meeting, others have increased their interactions with their local user communities or become more visible in the APHA.

Conclusions: We anticipate that results of this research will support anecdotal evidence that attendance at APHA results in greater comprehension of and connectedness with users, allowing the librarian a unique opportunity to become embedded with the professionals they are serving.

30

Integrated Health Interview Series (IHIS): A Free, Online, Integrated Version of the US National Health Interview Survey, 1960s–Present

Miriam L. King, Research Associate (PhD), Minnesota Population Center, University of Minnesota–Minneapolis

Objective: We created a free, online version of data from a leading US health survey, the National Health Interview Survey, with consistent codes, extensive online documentation, and a data extract system making files with the years and variables selected by the user. The objective is to make these health data easier to use across multiple years.

Methods: Methods included tracking variables and survey questions over time and across hundreds of reformatted public use source files and recoding the data into consistent values without losing information, via customized programming. Our user-friendly web design displays over 7,000 variables on health status, behaviors, and access to care. We wrote detailed descriptions of each variable that cover comparability issues, codes and frequencies, and linked survey text. Our metadata driven system allows researchers to merge files to create, online, a tailor-made extract file with the variables and years fitting their research project, or to tabulate data online. The scope and accessibility of the website, database, and documentation are best viewed interactively; I will demonstrate an interactive copy of the website on a laptop computer.

Results: Prior to the creation of our free, online version of these data, users of the public use health data files rarely analyzed material from more than one to two survey years. Researchers using our version of the data routinely analyze health trends and differentials across multiple years, often covering the 1960s to the present. Our online tabulator makes simple data analysis via table creation accessible to undergraduates, while advanced students and researchers with experience using a statistical package include multiple decades of data in multivariate analyses. Our biggest challenge is bringing this resource to the attention of more medical and public health researchers, educators, and students.

Conclusions: While we succeeded in making it easier to analyze multiple years of data from a leading US health survey, we need to work with medical librarians to make this free health database more widely known.

33

Librarian-Nurse Partnerships Support and Sustain a Magnet Culture

Debbie Weaver, AHIP, Manager, Library Services; **Anne Marie Kotzer,** Head, Nursing Research, Innovations and Outcomes; The Children's Hospital, Aurora, CO

Objective:

1. Discuss how the clinical and research librarian can partner with nursing to support high-quality, safe patient care and optimal health outcomes.
2. Describe specific strategies that can enhance and sustain the Magnet culture of an organization.

Methods:

• Best Evidence in Real Time (BERT): The clinical and research library will perform a literature search regarding any aspect of a patient's care and deliver the results to the requestor within thirty minutes whenever possible.
• Book a Librarian: Nurses can schedule an appointment with a librarian for one-on-one or group consultation.
• Literature searching services: Librarians will perform a thorough search of the peer-reviewed literature on the nurse's topic of interest and deliver a list of relevant abstracts.
• Nursing current awareness service: A librarian reviews the latest nursing literature and compiles a list of the most noteworthy articles along with links to the full text. This is emailed to the nurses.
• Bibliographies for nursing grand rounds.
• Displays at conference events attended by nurses.
• Librarian membership on the nursing research council: The library manager attends meetings and assists with any evidence needs.
• Librarian membership on the hospital continuing education council.

Results:

• Literature search requests from nursing increased 128% from 2005–2008 after the librarian joined the nursing research council.
• The library currently averages 9 BERT requests per month, an increase of 233% from 2009; 84% of the requests come from the nursing staff. This may be a direct result of a recent marketing campaign to make nurses aware of the BERT service.
• The library held instructional sessions for 116 nurses in 2009, a 729% increase since 2007.
• Over 200 nurses are signed up to receive the monthly nursing current awareness email.

Conclusions: These librarian-nurse partnerships in the organizations help to strengthen the research and evidence-based practice programs as well as support and sustain our Magnet culture. This collaboration maximizes staff's limited time and resources and utilizes the unique talents and expertise from each discipline.

39

Wounded in Action: Reaching out to Veterans Through Art and Programs

Anna L. Tatro, Liaison and Outreach Services Librarian; **M. J. Tooey, AHIP, FMLA,** Associate Vice President, Academic Affairs, Executive Director; Health Sciences and Human Services Library, University of Maryland–Baltimore

Objective: To support the *Wounded in Action* art exhibit, a national juried exhibit produced and organized by the American Academy of Orthopedic Surgeons. Faculty librarians felt it was important to develop helpful resources, educate the community, and raise the awareness of the many people touched by wounded warriors.

Method: Liaisons collaborated to create a multidisciplinary LibGuide geared toward the themes presented throughout the *Wounded in Action* exhibit including musculoskeletal injuries, psychosocial needs, and organizations. By creating a LibGuide, the liaisons made the information provided accessible by many different types of users. The library worked with the Regional Medical Library, National Network of Libraries of Medicine, to offer the workshop, "Combating Information Fatigue: Health Information Resources for Veterans." The executive director appeared on local television and developed a seven-minute informational video about the exhibit, which is linked to the LibGuide.

Results: From the creation, implementation, and use of the LibGuide, we were able to assess the strengths and weaknesses of our collection, make more informed purchases, obtain comments from users, and monitor the number of hits. Ninety-two people have accessed the LibGuide, 161 people have accessed the YouTube video, and 9 people attended the combating information fatigue workshop. A number of people who could not attend the workshop asked for the materials and/or requested the workshop be held at their institution.

Conclusions: This art exhibit has allowed us to rethink how we serve the campus population, service members, and the general public. The LibGuide and workshop have proved to be an excellent way to assist in the promotion and awareness of the *Wounded in Action* exhibit. The librarians have converted the *Wounded in Action* Libguide into a veteran's health LibGuide and plan to continue offering the workshop each semester.

45

The Plagiarism Project

Karen Sorensen, Reference Librarian; **Nancy R. Glassman, AHIP,** Systems Librarian; **Racheline G. Habousha,** Head, Public Services; **Aurelia Minuti,** Head, Reference Department; **Rachel Schwartz,** Reference Librarian; D. Samuel Gottesman Library, Albert Einstein College of Medicine, Bronx, NY

Objective: Students today have grown up copying and pasting information from the Internet and may be unaware of citation and attribution rules. Concerned by the increasing use of unattributed material in dissertations, the dean of the graduate school asked librarians to educate students about the risks and consequences of plagiarism.

Methods: Setting: Academic library serving a school of medicine, a graduate school of biomedical sciences, and a graduate school of psychology. Participants: Students in the graduate programs in biomedical sciences, doctoral candidates, first-year students, second-year students.

Program: Librarians took a three-tiered approach for each group: research guide, lecture, and hands-on training. Librarians created a research guide to help graduate students navigate the process of dissertation preparation. It covers locating literature, selecting research methods and techniques, collecting and formatting references using EndNote, writing style and presentation, finding information on submitting theses, and finding the right journal in which to publish. Librarians were invited speakers at the weekly graduate seminar series. Lectures were tailored to the needs of three separate groups of students at different stages in their graduate studies. Lectures were followed by small-group workshops. In these hands-on sessions, librarians provided training in EndNote and answered other related questions.

Results: Research guide: Frequent usage indicated students found guide helpful. Lectures: Mixed reviews from survey results provided insight into how to refine future lectures to better meet students' needs. Labs/Workshops: Poor attendance due to scheduling conflicts, late announcements, and open-ended nature of topic in initial sessions. Attendance improved when the topic was honed and workshops were announced in advance. An unexpected benefit was that librarians gained a better understanding of the graduate programs, which will enhance future collaboration.

Conclusions: Research guide will be updated regularly. Future lectures will focus on issues specific to scientific writing, provide concrete examples, and address concerns of non-native English speakers. Workshops will be dedicated to EndNote training and announced a week in advance. Project will be expanded and customized to meet the needs of other graduate programs at the Albert Einstein College of Medicine.

48

Library Savvy: Incorporating New Access Points to Increase Tutorial Usage

Ryan Harris, AHIP, Reference and Research Services Librarian; **Anna L. Tatro,** Liaison and Outreach Services Librarian; Health Sciences and Human Services Library, University of Maryland–Baltimore

Objective: An academic health sciences library offered a variety of online tutorials on database searching and using library resources. These tutorials were directly embedded to a tutorial page on the library's website. Librarians wanted to create more online tutorials to allow library users to access more information about using library resources and databases online and to increase tutorial usage.

Methods: A tutorial planning committee formed in 2008 to streamline the process of creating tutorials. Faculty librarians and public services staff who served on the committee were given specific tasks including creating and editing scripts, recording and editing tutorials, and working with information technology (IT) staff to launch tutorials online. The committee created a YouTube channel for the library's tutorials. In addition, a faculty librarian member of the committee worked with campus computing to including tutorials on the campus iTunes U site. Tutorials were also embedded in subject appropriate LibGuides. Users can now access tutorials from the library's tutorial web page, the library's YouTube channel, from subject specific LibGuides, or iTunes U.

Results: The campus iTunes U site was launched June 2009, and the library's YouTube channel was launched October 2009. Tutorial views increased 96%, from 2,287 views between October 2008 and September 2009 to 4,483 views between October 2009 and September 2010. Over the past year, 78.5% of total tutorial views came from YouTube and 21.5% came from iTunes U. Tutorial offerings have increased by 83%. Tutorials will continue to be developed using these processes and placed online both on YouTube, iTunes U, and the library web page, and will be included in appropriate LibGuides.

51

Rethinking Programs: A Peer-reviewed Video Program

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Sciences Center–Shreveport; **Stephanie Fulton, AHIP,** Associate Director, Research Medical Library, The University of Texas MD Anderson Cancer Center–Houston; **Jodi L. Philbrick,** Course Coordinator, Department of Library and Information Sciences Health Informatics, University of North Texas–Denton; **Nancy J. Allee, AHIP,** Deputy Director, Taubman Health Sciences Library, University of Michigan–Ann Arbor; **Carrie L. Iwema,** Information Specialist, Molecular Biology, Health Sciences Library System, University of Pittsburgh, Pittsburgh, PA; **Shannon D. Jones, AHIP,** Associate Director, Research and Education, Tompkins-McCaw Library for the Health Sciences, Virginia Commonwealth University–Richmond; **Mindy Robinson-Paquette,** Senior Information Specialist, Scientific Information and Library Service, Sanofi-Aventis, Malvern, PA

Objective: A program report discussing the implementation of an innovative program session at MLA '11 by the Cancer Librarians Section with other sections and special interest groups (SIGs). There were three primary objectives: (1) to increase participation by organization members who cannot attend a national annual meeting, (2) to demonstrate the process implemented to select videos for peer-reviewed video supplements at a national meeting, and (3) to assess the success of the member participation using this innovative program format.

Methods: Program representatives from sections and SIGs determined the appropriate length and number of videos to supplement the traditional contributed paper presentations. Determination of video repository was made through examination of free resources with established reliability and security. Representatives tested the system for security and ease of use by the prospective video contributors. In consultation with MLA's executive leadership, a proper copyright release was created. National models within the organization were used to develop the criteria for peer review. Email and newsletter calls to participate were sent to organization members. A determination to award prizes was made to encourage submissions of those reluctant to share their stories.

Results: As a first-time program, the technical issues involved with developing a mechanism for videos to be submitted, determining formats for the videos to be submitted, and obtaining submissions proved to be challenging. The peer-reviewed criteria involving audience participation may be useful for others to implement in planning programs of this kind in the future. By asking those attending the session to vote on the video submissions, the session program planners hope to see many attendees at the session providing feedback.

Conclusions: This new model of session programming could be used for future program sessions to encourage involvement of those who are unable to attend the session but have valuable experiences and research to share with their colleagues.

54

MLA Amplified: Content Analysis and Tweeter Tales

Marcus Banks, Director, John A. Graziano Memorial Library and Academic Instruction and Innovation, Samuel Merritt University, Oakland, CA; **Marie T. Ascher, AHIP,** Associate Director, User Support, Education, and Research, Health Sciences Library, New York Medical College–Valhalla

Objectives: During MLA '10, in addition to the meeting blog with official bloggers, there was an active Twitter stream using the hashtag #mla2010. Lorcan Dempsey has coined the term "amplified conference" to refer to conferences that employ social media and networking tools (Twitter, Facebook, Flickr, etc.) to communicate conference content. This poster presents an overview of the #mla2010 tweets as a social and intellectual history of the meeting.

Methods: Content analysis and survey. Those posts that were marked with the official meeting hashtag were collected using TwapperKeeper software. Posts were grouped into themes and categories in order to make conclusions about the effects an amplified MLA meeting has on the meeting attendee experience and to inform recommendations for future utilization of social media at our annual meetings. A survey of active participants in the MLA '10 Twitter stream will provide additional data about the experience and value of participation in an amplified MLA meeting.

Results: A sizeable minority of MLA '10 attendees made use of the Twitter stream, either as readers, tweeters, or both. Using an adapted coding scheme to analyze the #mla2010 tweets, we found that Twitter was used mostly to broadcast meeting content, set up social events, discuss ideas, and conduct general conversations around the meeting. In addition, the Twitter stream allowed people unable to attend a meeting in person to follow the events. The results from the analysis of the tweets matched self-reported behaviors by those who used Twitter. Those who abstained cited many reasons including a dislike of Twitter, a preference for face-to-face interactions, and lack of online access during the meeting.

Conclusions: For those who choose to utilize it, Twitter provides a way to enrich the annual meeting experience. It also offers a more informal, real-time record of events that can complement official meeting proceedings.

57

Using EndNote to Format National Institutes of Health Grants Documents

Merle Rosenzweig, Librarian; **Bethany Harris,** University Library Associate; **Stephanie Bird,** University Library Associate, Taubman Health Sciences Library, University of Michigan–Ann Arbor

Objective: When the National Institutes of Health (NIH) public access policy became law on April 7, 2008, there were many changes made to several sections of the NIH grant applications, including the initial funding application, the annual progress reports, and the biosketches. The librarians of the University of Michigan Health Sciences Library saw an opportunity to help our NIH researchers with addressing these changes.

Methods: The NIH public access policy requires that a PubMed Central identification number (PMCID) or an NIH manuscript submission number (NIHMS) be added to the end of a journal citation in grant proposals, progress reports, and the NIH biosketch that may accompany these to show compliance for research that is supported by NIH grant funding. EndNote, the software program from Thomson Reuters, provides its users with tools in the program that address this requirement.

Results: The University of Michigan Medical School has a site license for EndNote, and because this citation package is used by many University of Michigan researchers for their communications with NIH, librarians of the health sciences library developed instruction on using it. These classes have been offered for over a year, and each time, attendance has exceeded the capacity of the computer classroom.

Conclusions: This poster will illustrate the class that the health sciences library librarians have developed using the software EndNote to meet the formatting of documents that is now necessary for the NIH grant process.

60

Evolving Technologies to Support Mobile and Collaborative Curriculum

Nancy T. Lombardo, Associate Director, Information Technology; **Jeanne Marie Le Ber,** Associate Director, Education and Research; **Todd Vandenbark,** Web Services

Librarian; Spencer S. Eccles Health Sciences Library, University of Utah–Salt Lake City
Objective: This poster describes the evolution of use of mobile devices and collaborative tools in a school of medicine curriculum course. Continuous evaluation of technologies used in teaching is essential. As the technological landscape changes, so must the tools used in instruction. This poster will review the criteria used to determine how to move in the mobile and collaborative technology environment.
Methods: This clinical rotation had centered on Palm mobile technologies for years, but functional criteria evolved that led to the adoption of iPod Touch devices. The course previously relied on Google Groups for collaboration among students, but unexpected changes in that application that limit functionality led the course away from this tool. Criteria determining the tools used in clinical curriculum courses include: ease of use, functionality, resources and apps available, network connectivity, and cost. Primary criteria must be the students' willingness to use the selected technologies. In addition, staff and faculty development and training time must be considered. These and other criteria will be discussed in relation to the adoption of new technologies over time. The course will be described in detail, explaining the rationale for selecting the current suite of technologies.
Results: School of medicine faculty and librarians collaborate to develop functional criteria for the use of mobile technology in this pediatric clinical rotation. A annual course evaluation meeting allows the team to update, reconsider, and refine the technology and teaching techniques used. Student input is included in this evaluative session.
Conclusions: As the result of librarian and faculty collaboration, the next generation of physicians is inspired to enhance their knowledge and technology skills through a course that emphasizes mobile technology and web-based collaboration tools.

63

Academic Librarian Participation in Health Fairs: An Interactive Mode of Health Information Outreach

Jodi Jameson, Nursing Librarian, Mulford Health Science Library; **Lucy Duhon,** Coordinator, Serials/Electronic Resources, and Serials Librarian, Carlson Library; University of Toledo, Toledo, OH
Objective: To determine the level of academic librarian involvement and participation in campus and/or community health fairs as a means of health information outreach.
Methods: Online survey distributed to US academic health sciences libraries (affiliated or unaffiliated with a hospital) and general academic libraries serving four-year institutions.
Results: Over half of the survey respondents indicated that librarians at their library never participated in health fairs, while just over 20% said that they occasionally participated. Our survey uncovered many barriers that sometimes prevent librarians from fully participating in health information outreach activities, including health fairs.
Conclusions: In addition to the survey results, this poster will provide an example of health information outreach in the form of a campus health fair at the authors' institution. Lessons learned and practical tips for other libraries will be explored.

66

Rethink Your Library Website: First Know Your End Users

Todd Vandenbark, Web Services Librarian, Systems, Spencer S. Eccles Health Sciences Library, University of Utah–Salt Lake City
Objective: To generate useful baseline data on library patrons' general demographics, technology preferences, use of social media, information-seeking preferences, and perceived use of library resources for use in rethinking the design of the library's website.
Methods: The Spencer S. Eccles Health Sciences Library is an academic library at the University of Utah–Salt Lake City. The last major survey of patrons took place in 1995, prior to technological changes brought on by ubiquitous adoption of mobile phones, social media, and newer information resources. With the help of top-level administration in the university's school of medicine, and colleges of nursing, pharmacy, and health, the library conducted an online survey of 1,671 faculty and staff using the SurveyMonkey web-based survey service. To encourage participation, respondents were entered into a drawing for 1 of 5 prizes, each of which included coupons for 2 free interlibrary loan orders and a 1-hour research consultation with library staff.
Results: Of the 183 survey respondents, over 75% visit the library at least 1 time per semester. These visits are primarily to use print materials and secondarily for staff assistance in some form. Also, 92% of respondents visit the library website at least 1 time per semester, mainly to use online journals and databases. Third, nearly two-thirds of participants have browsed the web with a mobile device, and 85% use text messaging. Finally, like the students they work with, respondents are most likely to use Google when seeking background knowledge on a new topic, followed by PubMed and textbooks (print or electronic).
Conclusions: Faculty and staff patrons still think of the library in terms of books and staff. They are unaware of, or seldom utilize, regular communications from the library via newsletter or social media.

69

Volunteering with a Relief Organization to Provide Consumer Health Information

Rick Wallace, AHIP, Assistant Director; **Nakia Cook, AHIP,** Clinical Reference Librarian; **Biddanda (Suresh) Ponnappa,** Director; **Kefeng (Maylene) Qiu, AHIP,** Clinical Reference Librarian; Quillen College of Medicine Library, East Tennessee State University–Johnson City
Objective: Remote Area Medical (RAM) Volunteer Corps is a nonprofit volunteer relief corps dedicated to serving mankind by providing free health care, dental care, eye care, and technical and educational assistance to people in remote areas of the United States and the world. The East Tennessee State University Medical Library participated in 2 RAM expeditions. Approximately 3,000 patients were seen at the 2 events.
Methods: The library obtained funding to purchase laptops and printers and printed consumer health information. The library had a prominent position in the educational section of the events. Librarians from other medical libraries and public libraries were invited to be part of the team. During the event, library staff aggressively sought out opportunities to give consumer health information to patients.
Results: The library provided health information to approximately 1,300 of the participants.
Conclusions: RAM provided the library with a chance to really help out with the community. It was an interesting eye-opening experience. It is the medical library's wish to have a continued relationship with RAM. The library's presence made an impression on the various health care providers as to what a powerful tool information could be.

72

We've Got You Covered: Statewide Service Continuity in Disasters

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Objective: To present a case study exploring how best to provide ongoing access to library resources in various disasters. This case focuses on a statewide library service continuity plan that is ready for implementation in the event of a disaster impacting hospital or academic health care providers' access to core library services and resources.

Methods: In response to an increasing awareness of a need for continuity of service during a disaster, a national Network of Libraries of Medicine grant was awarded to support two training sessions on disaster planning. A meeting of institutional representatives interested in following up was held. Using preexisting relationships among the state's academic health sciences libraries, Area Health Education Center (AHEC) libraries, and hospitals, an agreement was formed to assist with continuity of core services. Core services are reference assistance, interlibrary loan, and access to online resources. An executive committee—consisting of four academic medical librarians, one AHEC representative, and one AHEC digital library representative—was established to support and continue the vision of collaboration and service continuity. To formalize the agreement and relationships, all four academic health sciences library directors and all nine AHEC library directors signed a mutual aid agreement, which is intentionally not legally binding.

Conclusions: The agreement provides a solid foundation for the provision of core library services in academic and community health care settings in the event of a disaster in any corner of the state. Independent communication methods have been established to avoid potential downtime of local channels. The libraries successfully activated "on alert" status during a recent hurricane threat.

75

Literature Search Practicum for Third-year Medical Students

Mia S. White, AHIP, Reference Librarian; **Anna Getselman,** Associate Director; Woodruff Health Sciences Center Library; **Erica Brownfield,** Associate Professor, Department of Medicine/School of Medicine; Emory University, Atlanta, GA

Objective: The overall goal of the practicum is to teach future physicians how to utilize evidence-based methodology in real-time patient care environment. Three learning objectives were addressed: to raise students' awareness of information sources, to improve students' ability to access and search resources in a timely manner, and to advance students' understanding of filtering and managing search results.

Methods: The practicum starts with a lecture, introducing the population-problem/intervention/comparison/outcomes (PICO) model and review PubMed's features and functions. During this lecture, students are introduced to the assessment rubrics for their assignments. This sets expectations and provides students with a timeline to focus this learning activity. The small-group discussions are conducted weekly. Each student in the group presents a clinical case, questions from that case, and the evidence discovery path. Students use searches, saved prior to the session in MyNCBI. A follow-up discussion is facilitated by the librarian.

Results: Students become more comfortable with their ability to break down a clinical question and to use features and functions in PubMed and My NCBI.

Conclusions: Most students find the small group sessions a wonderful learning experience because of the intimate setting and personalized feedback. Students find the process very worthwhile and meaningful.

78

An Innovative Use of Instant Messaging Technology to Support a Library's Single-service Point

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Objective: To identify the best method and technology to institute a library single-service point model that utilized referral to reference librarians.

Methods: A system to refer patrons with reference questions from a service desk to on-call librarians was sought by a public services team at an academic medical library. Desired characteristics of the referral system included: (1) ease of use by service desk staff, (2) ability to broadcast a help request to several librarians at once, and (3) ability to detect whether a help request had been answered by a colleague. The library's head of technology development identified LibraryH3lp, a multi-operator instant messaging (IM) system, to meet these needs.

Results: Service desk assistants summon a reference librarian through a "broadcast" IM when reference help is needed. Implementation of this service model included providing training on issues such as question types to answer versus refer and protocols for sending and answering messages. The new service was phased in over several weeks, and adjustments were made as needed. Challenges included identifying a staffing model for the on-call service and choosing a front-end technology solution for the LibraryH3lp client.

Conclusions: The service model was at first a major cultural and procedural change but is now a routine aspect of customer service in our library. Service desk help requests have been sent through IM for two years with successful workflow and timeliness for our patrons.

81

Being Where the People Are: Facebook Use Among US Public Health Organizations

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Disease; **Nathan Hill,** Student, School of Information; **Kate Saylor,** Outreach Librarian, Taubman Health Sciences Library; University of Michigan–Ann Arbor

Objective: To better understand how US public health departments are using Facebook.

Methods: This study used a variety of methods to obtain a full picture of Facebook use by public health organizations. First, unobtrusive observation was employed as we searched for and visited the Facebook pages of health departments and public health organizations in the United States. Data visualization tools were used to perform basic content analysis to identify common themes in the topics and postings on each organizations' "Wall." Next, we contacted each page administrator via email and Facebook messages to request completion of a questionnaire. This descriptive survey provided more information about the goals behind Facebook use and allowed us to learn more about how the Facebook presence was being maintained, by whom, and for what purpose.

Results: Many US public health organizations are using Facebook to connect with the populations they serve. Pages are maintained by staff from a variety of positions, with most requiring less than 1 hour per week or 1–2 hours per week to maintain. Midwestern states appear to have adopted Facebook more widely than other regions. Common themes in organizations' Facebook posts include preventive care and announcements of new programs. Few topics or types of posts seem to engender community responses. Most organizations are targeting younger adults through their Facebook presence. Over 70% of those surveyed believe their Facebook campaign is effective. Some viewer information is available, but data are insufficient to accurately describe the populations viewing these Facebook pages.

Conclusions: While most public health organizations using Facebook to connect with their populations feel this activity is successful, more research is needed to determine return on investment or the impact of Facebook presence on effective outreach community health.

84

How Satisfied Are Our Customers? A Five-year Evaluation of Information Desk Services and Staffing

Alicia A. Livinski, Biomedical Librarian; **Brigit S. Sullivan,** Biomedical Librarian; NIH Library, National Institutes of Health, Bethesda, MD

Objective: The study seeks to evaluate customer satisfaction at the library's information desk and to determine whether we are meeting our customers' needs. We also wish to compare the level of satisfaction and any changes over a five-year period.

Methods: The goal is to conduct an annual survey at the information desk and compare the results for trends and answers. A paper and web-based survey was distributed at the information desk of a large, government biomedical research institute, which receives an average of 780 questions per month. The population surveyed included researchers, clinicians, administrators, students, fellows, and any employee who walked in or called for assistance. Incentives (e.g., thumb drives, candy) were used to encourage completion of the survey. SurveyGold and Excel were used for data collection and analysis.

Results: The overall rating of service remained steady at 92% (in the excellent range) from 2009–2010. Noteworthy is that the number of respondents increased by approximately 500% since the initial survey in 2006, increasing the confidence in the results. Comments were consistently complimentary and praised the resources and the services offered. All 5 information desk services were rated as outstanding, with all increasing from 2009–2010. Results indicated a continued overall satisfaction with services received at the library's information desk. The largest increase in a service category was "Information Received Was Complete," which rose 8% from 2009 to 2010.

87

Nurse-Library Staff Collaboration Leads to Clinical Questions Reference Service

Mark Vrabel, AHIP, Information Resources Supervisor, Oncology Nursing Society, Pittsburgh, PA

Objective: To develop a clinical questions reference service provided by a collaboration of nursing and library staff.

Methods: Setting: The national headquarters of a large, international professional membership association. In response to the large volume of clinical inquiries being received, a dedicated email address and 866 phone number with a unique extension were created so that clinical questions could be submitted from around the world by association members, other oncology health care providers, and patients, families, and members of the public. The service was promoted in the association's monthly news magazine, website, and Facebook and Twitter accounts. An auto-reply to email inquiries informs requestors of a response time of 2 business days; if the request is particularly complex or detailed, a notification is sent that it may take longer.

Results: The service has averaged approximately 140 questions per month. Although it is ostensibly geared toward oncology information, questions often fall outside that scope and pertain to a wide variety of topics. In some cases, the information provided leads to practice changes, as some inquiries are submitted by institutions updating their policies and procedures. Evidence-based resources and the guidelines published by the host association are used to answer the questions, excerpting relevant text that most directly addresses the inquiries.

Conclusions: The most common questions and answers were compiled into a "top 20" publication made available for sale and incorporated into a column written by the librarian in the association's monthly news magazine. The service will be migrated to an open access portal on the association's website, organized into topically driven sections with evidence-based summaries of information, publications, continuing nursing education programs discussing the topic in greater detail, journal club access, and video presentations.

90

Letting Go of Learn-As-You-Go: Establishing an Official Employee Handbook and Formal Orientation Process in an Academic Library after Forty Years

Deidra Woodson, Metadata and Digitization Librarian; **Mark Baggett,** Assistant Systems Librarian; **Kimberly Pullen,** Liaison Section Program, Head; Medical Library, Louisiana State University Health Sciences Center–Shreveport

Objectives: The goals of this project were to create an official employee handbook and design a formal orientation process for library employees in an academic health sciences library forty years after being established.

Methods: Under the leadership of a newly appointed director, a long-range strategic plan for the library was prepared in 2002. One of the goals stated the need to develop a formal orientation process for new library employees. Upon the hiring of several new librarians recently, the authors volunteered to design an orientation process, as well as write an employee handbook. They explored options for hosting the handbook online and chose the MediaWiki platform because it was already being used as an internal collaboration tool in the library. Brainstorming sessions were held to determine the information to include in the handbook and the organization of the final product. The authors wrote sections of the handbook and provided links to information

already available on the institution's website. Finally, the authors developed an orientation procedure to ensure that all employees would be trained equally.
Results: Developing the employee handbook and orientation process has been a long and arduous task. The project was temporarily suspended due to lack of time. At the time of this abstract, the authors are planning a formal presentation of the handbook and orientation process for the medical library department. However, several librarians have already utilized the handbook and have provided positive feedback. Library administration is currently seeking to fill a position within the department; therefore, the orientation process will soon be "tested," as well.
Conclusions: The handbook provides information and links to pertinent resources in electronic format in one convenient place for all library employees. The structured orientation process provides a knowledgebase of departmental and institutional procedures and establishes a solid foundation for ongoing training.

93

Librarian Involvement in Problem based Learning: A Student Perspective

Jessica Kilham, Information and Education Services Librarian, Lyman Maynard Stowe Library, University of Connecticut Health Center–Farmington

Objective: Library involvement in the correlated medical problem solving (CMPS) courses seems practical, but no formal evaluation has been conducted to determine the value of the librarian's involvement in the course from the student's perspective. This study seeks to evaluate first-year dental student's perspective of having library involvement in their problem-based learning course.
Methods: The liaison librarian to the school of dental medicine has taken an active approach in providing library instruction to first year students. In addition to the traditional orientation session and one-on-one instructions, the librarian has also been involved with the CMPS course, which uses a problem-based learning format. The format of this course is designed to encourage the student's ability to problem solve as well as sharpen their information retrieval methods. A survey was designed to rate students overall response to the librarian involvement in the problem-based learning course, role of the personal librarian, student's comfort with finding and using library resources, awareness of resources, handouts provided during the librarian's visit in problem-based learning, and rating of current outreach efforts. An email will be sent to first-year dental students to voluntarily participate in this survey.
Results: Survey results are pending.
Conclusions: Conclusion is pending on survey results.

96

Space Planning and Visioning: Preparing for the Future of the Galter Health Sciences Library, Northwestern University

James Shedlock, AHIP, FMLA, Director, Galter Health Sciences Library, Feinberg School of Medicine, Northwestern University, Chicago, IL

Objective: This poster describes a 2010 planning effort for the health sciences library's future. Two topics are presented: a summary of a master space plan and its outgrowth, and a vision document to guide future library development (strategic planning, space planning, etc.). The process described here could serve as a model for other academic health sciences libraries. Both topics—the library-as-place concept and re-visioning roles for medical librarians and library services—present opportunities to rethink tradition-based ideas.
Methods: A case study method is used. Questions addressed include: Is the library-as-place a valid concept when libraries are mostly digital? What vision should guide the library's role in the area communities? Master space planning began in 2008. The yearlong process involved all three university libraries—main, law, and health sciences—and was coordinated by the university's facilities management unit. Master space planning confirmed the need for library renovations. Visioning the future extended the space planning effort. Draft documents were produced in 2009–2010. The value of the master space planning process provided the opportunity to build a vision of the future library incorporating space changes along with staffing, service, and strategic initiatives.
Results: Two planning documents were produced. An executive summary for the library portion of the master space plan allowed for a timely (2010) announcement to medical school administration, prior to the master plan's release by university or main library administrations. A vision document resulted from efforts to articulate library collections and services for a renovated library space. Vision ideas were based on trends literature and local environmental conditions. The vision document will serve as a starting point for future strategic plans.
Conclusions: The space planning document was discussed with the library's supervisors in October 2010. This discussion resulted in strategic ideas for promoting the executive summary with medical school administration. The vision document will be submitted to the library's supervisors in late 2010. Similar strategic ideas for promoting the library vision will be developed and announced in this poster. This case study provides a model for peer libraries.

99

Librarian Housecalls: Going the Distance for Our Physician Assistant Program

Brandi D. Tuttle, Information and Education Services Librarian, Medical Center Library and Archives, Duke University, Durham, NC

Objective: This poster examines the formation and growth of a formalized liaison program with the off-campus physician assistant (PA) program. Filling traditional library roles and creating new roles in technology and education integrated the library with the PA program.
Methods: In January 2009, the PA program moved off-campus with no bus service. This move prompted a rethinking in how the library served the PA students and faculty, and a formal liaison program began. From modest beginnings, interactions with the PA program significantly increased including the number of classes embedded in the curriculum and the customized services offered. A LibGuide was created to link the PAs to appropriate library resources and the library liaison joined the PA technology committee to provide assistance in selecting appropriate resources and technology for the students and faculty. Through the PA technology committee, the librarian assisted with the installation of a media center, which required training for faculty in screencasting lectures. Aside from the traditional library roles of reference and instruction, both of which were more heavily utilized after the liaison program was formalized, new relationships were created centering on technology and identifying the library as a partner with and advocate for the PA program.

102

Utilizing Tags to Enhance an E-book Portal

Nicole Theis-Mahon, Head, Technical Services, Health Sciences Libraries, University of Minnesota–Minneapolis

Objectives and Methods: This poster describes the way in which the health sciences library used the tagging feature in its discovery system to create a portal for its e-book collections. Previously, the library listed the various titles by subject on a web page. However, this method was becoming unsustainable because of the rapidly increasing number of e-books added to the collection. The page was becoming a long list of titles and was not user friendly any more. Several options were explored for turning the page into an e-book portal. The most feasible one, given available resources, was to utilize the tagging feature in our discovery system and create a search box with predefined values so library users could find specific items by author, title, or subject or key words. The revised page now includes both the search box and a list of selected titles by subject area (www.hsl.lib.umn.edu/articles/ebooks/).
Results: The creation and use the predefined search box has allowed the library to design a portal for our health sciences e-book titles. It is easier for users to limit a search to health sciences-specific titles, and the library has seen an increase in usage of our e-book titles since the implementation of this box. The challenge lies in efficiently integrating e-book titles purchased through large packages that are of interest to our users.

105

(Trying to) Rethink the Reference Collection

Jeffrey Husted, Acquisitions Manager; **Leslie J. Czechowski,** Assistant Director, Collections and Technical Services; Health Sciences Library System, University of Pittsburgh, Pittsburgh, PA
Objective: To rethink the provision of a traditional, print reference collection in a health sciences library system that serves a dispersed user population and to investigate the possibility of creating an electronic, clinical reference collection.
Methods: To better serve our multisite medical center with geographically dispersed hospitals, as well as health sciences faculty and students, we explored the feasibility of creating an electronic, clinical reference collection. First, we examined the titles classed in Q and R in our print reference collection as a potential benchmark for the online collection, gathering data about the titles (usage statistics and if it appeared on standard lists including the former Brandon/Hill list and the current lists from Doody's Review Service). Then we investigated the potential of using the Doody's 2009 Essential Purchase Titles (EPT) list as a benchmark for this electronic collection and analyzed it against our existing print reference collection to determine overlap between the two. Finally, we determined the percentage of books in both the EPT list and our print reference collection that were available in an electronic format.
Results: Among print reference titles classed in Q and R, 15% were on the EPT list and 40% were available in electronic format. Only 34% of the EPTs classed in Q and R were in our print reference collection (however, we owned 79% of the EPTs in some collection or format). Only 52% of these EPTs were available in electronic format. Our analysis spanned 2 releases of the EPT list; comparing the 2009 and 2010 lists, we found a turnover rate of about 51%.
Conclusion: Our print reference collection would not be a useful benchmark due to its size and lack of electronic versions available. The EPT list is also not feasible because it is too fluid year-to-year and only half of the EPTs are available electronically. Given the low percentage of e-books available, we will need to devise a different strategy for creating an electronic, clinical reference collection.

108

Next Generation Discovery Systems and Biomedical Literature: Is Discovery Improved?

Linda C. K. Crook, Student, Certificate of Advanced Study in Health Sciences Librarianship, University of Pittsburgh, Pittsburgh, PA, and Health Sciences Librarian, Research Services, Washington State University–Pullman
Objective: This study examines how metasearch and other next generation discovery system features impact discovery of biomedical literature. The inclusion of records from PubMed in WorldCat's central index means biomedical article resources can be searched along with traditional library catalog records. With the browsing of results emphasized over advanced searching, how effective is keyword search for the biomedical researcher?
Methods: This study examines the effectiveness of metasearch as implemented in WorldCat Local for retrieving a subset of widely cited clinical literature. A great advantage to functional requirements for bibliographic records (FRBR)-ized catalogs such as WorldCat Local is the ability to integrate article-level records for metasearching. The faceted discovery method seems easy for novice users but may prove frustrating to the expert user. The methods developed by Vanhecke et al. (2007) was replicated. Searches were conducted using the list of forty-nine highly cited medical publications and the keywords created by Ioannidis (2005), and the frequency of deriving the desired article measured. Importance of recall, relevance, and precision in the next generation discovery environment, and to today's biomedical researcher, are discussed.
Results: For all searches, resources listed on the first page of results were primarily relevant. In the majority of searches, keywords from Ioannidis failed to retrieve the specific article, whereas searches using the first four article title keywords were always successful. In some cases, only a spelling change was needed in the Ioannidis keywords, while other searches needed a reduction in keywords.
Conclusions: Keyword searching can be successful in WorldCat Local both for finding specific articles and for finding materials by topic. The user is best served by limiting their starting keywords and varying their search terms. The importance of recall, relevance, and precision must be reexamined in the next generation discovery environment. Today's busy researcher or clinician is likely to search using keywords only. Recall and precision may be less important than the relevance of the first pages of results. User testing is still needed to fully evaluate next generation discovery.

111

ReThink: Open Access Still Moving Scholarly Communication Forward?

Helen-Ann B. Epstein, AHIP, Head, Education and Outreach, Weill Cornell Medical Library, Weill Cornell Medical College, New York, NY
Aim: Continue analysis of how many times select open access titles are being cited.
Background: A MLA '09 paper, "Is Open Access Communicating Scholarly," analyzed the number of times selected open access journals (BioMed Central [BMC] and Public Library of Science [PLoS] titled) were cited in Web of Science. Another year has passed, and PubMed Central has expanded.
Method: Repeat method of 2009, to search for titles beginning with BMC or PLoS in Web of Science and compare number of times cited in 2009 and 2010 and first months of 2011.
Results: As of February 2011, the BMC journals added 1 title and 5,787 references. Three hundred seventy-one references have been cited at least 50 times. Thirty-one more references were cited 100 times or more. Eighty-six more references were cited at least 50 times. The top 3 most cited references remain the same but have been cited more. As of February 2011, the PLoS family of journals added 1 title and 6,236 references. Eight hundred

thirty references have been cited at least 50 times. Fifty-eight more references were cited 100 times or more. Two hundred twenty-seven more references were cited at least 50 times. The top 4 most cited references remain the same. All have been cited more; #1 and #2 swapped places.
Conclusions: These selected open access journals analyzed in Web of Science have added titles and more citations and have been cited more. Open access journals do move scholarly communication forward.

114

The H-index in Nursing: Comparison of Google Scholar, Scopus, and Web of Science

Sandra L. De Groote, AHIP, Scholarly Communications Librarian, University Library; **Rebecca Raszewski, AHIP,** Information Services Librarian, Library of the Health Sciences-Chicago; University of Illinois–Chicago

Objective: Researchers often track citations to determine the impact of their publications. The h-index determines individuals' impact in their field. Google Scholar, Scopus, and Web of Science (WOS) display articles cited by articles indexed in their respective databases. In addition, WOS and Scopus provide the h-index for individual researchers. Harzing's Publish or Perish (POP) provides the h-index for articles retrieved through Google Scholar. The study compares the articles cited in CINAHL, Google Scholar, Scopus, and WOS, and the h-index ratings provided by POP, Scopus, and WOS.
Methods: Twenty nursing researchers were randomly selected from a list of nursing faculty at a large urban university with a health sciences campus. Searches by author name were executed in the POP, Scopus, and WOS databases, and the h-index for each author from each database was recorded. In addition, the citing articles of the published articles were imported into a bibliographic management program. The total number of citations and duplicate citations imported from each database and the total number of unique citations from all databases were recorded. The h-index and unique citations retrieved from each database were compared to determine the database most comprehensive for determining the h-index.
Results: Google Scholar, Scopus, and WOS all provide different h-index ratings for authors. Google Scholar presents the highest rating, followed by Scopus, and then WOS. The databases vary in terms of the journals indexed and additional resources (theses, books) included, which accounts for some of the variability. Each database (CINAHL, Google Scholar, Scopus, WOS) found unique cited references, although there was also duplication between databases. Because Google Scholar is not a controlled database indexing finite items, there can be false hits from Google Scholar including duplicates within the database.
Conclusions: If researchers are interested in the most reflective author h-index, they should search all databases for a comprehensive list of citing articles, although this is time consuming. Because of the variability in results between databases providing h-indexes, comparisons of author h-index ratings between researchers should only be done within a specified database that provides the h-index.

117

Library Services for People with Disabilities Twenty Years after the Americans with Disabilities Act: A Survey Updated

Christine A. Willis, Student, Certificate of Advanced Study in Health Sciences Librarianship, University of Pittsburgh, Pittsburgh, PA, and Librarian, Noble Learning Resource Center, Shepherd Center, Atlanta, GA

Objective: In recognition of the 20th anniversary of the Americans with Disabilities Act (ADA), this survey updates the progress and reflects the status of library services for people with disabilities since the Nelson study in 1995. This survey will address the major advances in technology as well as physical access in academic health sciences libraries for people with disabilities.
Method: A survey was compiled of original questions from Nelson's work published in the *Bulletin of the Medical Library Association* in 1996. Additional questions were added to the survey regarding the accessibility of technological changes that have occurred in the past fifteen years. A Google docs survey link was sent with a letter of explanation via two emails, in November 2010 and January 2011, to the email discussion list of the Association of Academic Health Sciences Libraries (AAHSL). Once responses were received, the data were evaluated to review how accessible health sciences libraries are today for people with disabilities compared to the 1995 responses.
Results: Based on the 24% response rate from the approximate 140 members of AAHSL, their libraries have progressed in eliminating physical barriers for persons with disabilities and staffs are more aware of the needs of persons with disabilities. The accessibility of technology from the library has been addressed in ways that are cost effective and relatively easy, for example, instruction documents on web pages are available in HTML format instead of only PDF. However, libraries seem to be reactive rather than proactive to making changes to services. This may be the case for several reasons, including costs and number of patrons with a need. Planning for persons with disabilities is primarily handled by the campus office for students with disabilities, but the budgeting for services is the responsibility of the library.

120

How Well Do Faculty Know Their Copyrights? A Survey of Faculty Knowledge, Perception, and Use of Copyright

Heidi M. Nickisch Duggan, Associate Director, Galter Health Sciences Library, Northwestern University, Chicago, IL; **Mariann Burright,** Scholarly Communication Librarian, University Library, Northwestern University, Evanston, IL; **Trudi Bellardo Hahn,** Professor, Practice, College of Information Studies, University of Maryland–College Park

Objective: To assess faculty members' knowledge and perception of their rights as authors and behavior when working with copyright transfer agreements. The key hypothesis of the study is the assumption that faculty members receiving grants from the National Institutes of Health (NIH) will be more knowledgeable of basic author rights than those faculty members who are not currently NIH grant recipients. Results will inform programs to educate faculty in the areas where their author rights knowledge is weakest, their perceptions are flawed, or their behaviors are self-defeating.
Methods: Design: A cross-sectional quantitative survey asking 13 specific questions grouped under demographics, publication activities, copyright knowledge, publishing behavior, and opinions about publishing options. The survey will be administered online through SurveyMonkey to approximately 200 faculty members at 2 different institutions. Population and Sample: The sample will be randomly selected from medical school faculty members at a medium-sized private institution and nonmedical faculty at a large public institution. In both groups will be faculty who have received NIH grants in the past 3 years and those who have not.

123

Disaster and Emergency Planning Outreach Workshop at Selected Sites in Metropolitan Atlanta

Joe Swanson Jr., Interim Library Director/Division Head, Computer Systems; **Roland B. Welmaker,** Librarian III; **Xiomara E. Arango,** Division Head, Technical Services; Library, Morehouse School of Medicine, Atlanta, GA; **Darlene Parker-Kelly,** Director, Health Sciences Library/Learning Resources Center, Charles R. Drew University of Medicine and Science, Los Angeles, CA; **Cynthia L. Henderson, AHIP,** Executive Director, Louis Stokes Health Sciences Library, Howard University, Washington, DC

Objective: To demonstrate selected National Library of Medicine databases such as Haz-Map, Household Products, ToxTown, TOXMAP, and MedlinePlus, and to show participants where to go for disaster or emergency information, how to create a disaster or emergency plan, and how to share it with relatives not living with them.

Methods: The school of medicine library conducted disaster workshops at selected churches and on the campus of the school of medicine. Workshops covered overview, training, formulation of a disaster plan, and information on disaster preparedness.

Results: Participants demonstrated how they could obtain authoritative information on disaster preparedness, how to prepare for a disaster, and how to devise a disaster plan.

Conclusions: At the end of a workshop, participants felt comfortable with having a disaster or emergency plan and identified a strategic location to keep it. Participants were willing to take the disaster information and plan to share it with family and friends.

126

Building Relationships through Monthly Health and Wellness Presentations and Events

Dana L. Ladd, AHIP, Community Health Education Center Librarian; **Sarah Amick,** Research and Education Assistant; Community Health Education Center, Tompkins-McCaw Library for the Health Sciences, Virginia Commonwealth University–Richmond

Objective: To collaborate with the health system to conduct monthly health and wellness presentations for patients and their families, hospital staff, and the community. This poster will demonstrate the process of developing a series of health and wellness presentations in a patient library.

Methods: We began by identifying possible health-related topics by consulting the health observances calendar and creating a list of topics. The center partnered with the hospital's speaker's bureau to more easily facilitate finding speakers for each event topic. The role of the speaker's bureau is to identify appropriate speakers, provide speaker gifts, and provide boxed lunches for participants. The center's role is to coordinate the presentation logistics, including providing space, setup, and prizes for attendees and preparing a health display, handouts, and advertisement. For each event, a student intern creates a health display and poster, and staff use a variety of methods to promote the event throughout the hospital.

Results: The center has successfully held 9 health and wellness presentations. Twenty-one people attended the heart program; 23 attended the healthy kidneys presentation, and more than 70 attended a healthy kidneys open house. Other programs include: journaling for stress reduction, stop smoking, domestic violence awareness, injury prevention, healthy eating, and caregiving. Attendance is divided among hospital employees, patients and family members, students, and community members. Out of 76 evaluation forms returned, 6 attendees rate the program a 3, and the rest rate the program either 4 or 5 (1 worst, 5 best). All are likely or very likely to attend another program.

Conclusions: The monthly health programs allow the center to not only collaborate with the hospital's speaker's bureau and the health system's clinical staff to plan these events, but provide a mechanism for engaging hospital employees, patients, students, and the community around a common health topic.

129

Information-seeking Behavior after the Closure of a Hospital Library: A Case Study

Mary E. Jones, Project Coordinator, Certificate of Advanced Study in Health Sciences Librarianship, University of Pittsburgh, Pittsburgh, PA

Objective: To determine the change in information-seeking behaviors among faculty and staff of a psychiatric hospital after the closure and relocation of the hospital's library.

Methods: This case study is the result of a user survey conducted with faculty and staff of Western Psychiatric Institute and Clinic (WPIC) at the University of Pittsburgh Medical Center (UPMC). It examines their use of the library currently and prior to the closure and relocation of WPIC's library. An original survey was developed for the purpose of this study and sent out via email to the faculty and staff of WPIC. Questions asked included demographic information, use of the physical library, use of electronic resources, and satisfaction with library services.

Results: Respondents to the survey comprised the faculty and staff of WPIC (n=105). Data were limited to respondents with knowledge of the library and who used the library and its services (n=79). WPIC employees used the library approximately once a month (M=1.20) prior to its closure and relocation. Faculty, residents, nurses, and clinicians/therapists used the WPIC library most often, with 45.5% rating their frequency of use as once a month or more. Current library use has decreased from once a month to approximately less than once a year (M=0.91). Those staff who have worked at WPIC between 2–5 years were more likely to use electronic resources more often than those who have worked there less than 5 years. Forty-three percent reported accessing electronic journals monthly, as well as accessing the library website weekly.

132

Rethinking Information Literacy: Reaching Out to Health Professions Students

Megan Davis, Health Sciences Librarian/Assistant Professor, Stewart Library, Weber State University, Ogden, UT

Objective: To assess the impact of a new "Information Resources in the Health Professions" course on students in the Dr. Ezekiel R. Dumke College of Health Professions program at Weber State University, a four-year public university.

Methods: Prior to 2009, the university's health professions students had little variety in fulfilling their information literacy graduation requirement. Most enrolled in a one-credit general information literacy course that limited their opportunity for in-depth exploration of unique health-related resources and information types. A one-credit course was created specifically for health professions students as an alternative to the general information literacy course. After completing the semester-long course, students were surveyed with regard to their opinions on course content, course set-up, and application in their other courses in the health professions program. University faculty members teaching a core biomedical course requiring students to write a literature review paper were also interviewed to gain their perspectives on student success since the addition of this course to the curriculum.

Results: Survey results indicate that students find this course most useful when they take it prior to or concurrently with their other health-related research-based courses. They are appreciative of the online nature of the course as it allows for schedule and location flexibility. Faculty in the college of health professions

have seen an increase in the quality of sources used by students in their research.
Conclusions: The addition of this health-specific information resources course to the library science curriculum has increased student awareness and use of relevant resources, leading to improvements in their research endeavors at the university.

138

Envisioning New Roles for Librarians in Medical Students' Specialty Selection Process

Sarah Cantrell, Education Services Librarian; **C. Scott Dorris,** Digital Information Services Librarian; Dahlgren Memorial Library, Georgetown University, Washington, DC

Objective: With the support of the academic deans, librarians at this medical school library are developing a specialty decision-making workshop and online resource guide for third-year medical students. The workshop will focus on three distinct areas: personal reflection, specialty and match information as well as research skills, and a discussion panel with practicing local clinicians and residents.
Methods: The purpose of the workshop is to provide third-year medical students with an environment in which they can explore their personal values and skills, point them to best information resources, and allow them to engage with practicing clinicians and residents. Librarians initially met with academic deans to conduct a needs assessment. Librarians attended the Association of American Medical Colleges (AAMC) Careers in Medicine training in order to become adept at using and facilitating the Careers in Medicine database, a key specialty decision-making resource. Librarians proposed a tiered approach that would include offering workshops in the students' first, second, third, and fourth year. At this time, data will only be reported on the third-year specialty decision-making workshop. An in-house online resource guide was created utilizing the LibGuides platform; the guide includes resources on specialties, interviewing, and residency programs among other items.
Results: The two-hour workshop was held on a Saturday morning in November 2010 and attended by nineteen third-year medical students. Two librarians taught the first half of the session on personal reflection and researching specialty information. The discussion panel comprised two members of the university's clinical faculty and two residents. A pre-workshop survey was distributed to the registered students to gauge their workshop expectations. A follow-up survey completed by ten of the participants indicated a strongly positive experience.
Conclusions: Based on participant and instructor feedback, the workshop was determined to be successful and will be offered once again with slight modifications. The primary challenge presented was in identifying and securing the clinicians and residents. The strength of the workshop lies in the students' engagement with the subject matter and the wonderful balance between the information presented by the librarians and that of the clinicians and residents.

141

Revising, Improving, and Using a Locally Developed Worksheet for Multiple Journal Requests to Simplify the Review Process

Steven W. Brown, Serials and Systems Librarian; **Kathe Obrig,** Associate Director, Collections and Access Services; Himmelfarb Health Sciences Library, George Washington University Medical Center, Washington, DC

Objective: To implement trial revisions to a previously developed worksheet used to aid in more effectively and expeditiously making collection development decisions by committee. The worksheet as developed was used effectively, but subsequent questions and further input encouraged the original developer to identify additional parameters to measure, thus improving on the original worksheet.
Methods: Sixty-four new journal requests from twenty departments were received through a faculty survey. Microsoft Excel was used to determine the review order based on the number of current subscriptions by department versus MEDLINE-indexed journals in that department's corresponding Medical Subject Headings (MeSH). This evaluation metric was originally based on journals per faculty in each department. Departments were listed on the spreadsheet in order of lowest to highest department coverage to prioritize departments with weaker journal coverage. Survey return rate was included for reviewers' reference. Departmental journal requests were listed on the worksheet with entries for price, vendor, indexing, Eigenfactor, and other notes that were essential to making a sound collection development decision. Journals that were requested by multiple departments were prioritized at the top of the list and relisted again for reference under each individual requesting department.
Results: Analysis of the revised worksheet indicated that the majority of parameters used in the first version remained useful for review. Use of the MEDLINE-indexed metric moved the review prioritization of ten departments higher and nine lower than in the initial review based on journals-per-faculty ratio. Further assessment of changes noted that twelve departments changed position five places or less. Not all departments matched up well with MeSH terms, resulting in inaccurate journal counts for some departments.
Conclusions: Both metrics provide valuable options for reviewing large batches of journal requests, although for purposes of review prioritization, the MEDLINE-based metric better indicates the degree of subject need. The collection development worksheet can be updated easily for expedited committee discussion and departments more accurately represented using both measurements. Both ratios can be used with departments who do not make title requests for further assessment internally by the serials department.

144

Science Clips: The Centers for Disease Control and Prevention's Weekly Public Health Article Alerts

Rebecca Satterthwaite, AHIP, TechSoft Group Librarian; **Gail Bang,** Team Lead, Information, Reference, Research, and Education Services; **Deidre Thomas,** Librarian, Public Health Library and Information Center; **Robert Swain,** Senior Knowledge Management Officer; **Barbara Landreth,** Librarian; **Kathleen Connick,** Librarian; **Christy Cechman,** Librarian, Public Health Library and Information Center; **John Iskander,** Senior Medical Advisor; **Tanja Popovic,** Deputy Associate Director, Science; **Jocelyn A. Rankin, FMLA,** (deceased); Centers for Disease Control and Prevention, Atlanta, GA

Objective: To provide a weekly snapshot of current articles written by, or of interest to, the US public health workforce.
Methods: Three sections of Science Clips are compiled and issued weekly to both the Centers for Disease Control and Prevention (CDC) intranet and the CDC Internet site (www.cdc.gov/phlic/sciclips/): CDC-authored publications, key articles in featured topics, and health-related articles noted in the media. Each section is compiled by a librarian from CDC's Public Health Library and Information Center (PHLIC). CDC-authored publications are compiled from results of stored searches in several databases, as well as any article that CDC authors call to the attention of scienceclips@cdc.gov. Each week, a subject matter expert works with PHLIC staff on selection of the articles for the featured topics of that week. The articles highlighted in

the media are selected from current news items in the mainstream media that discuss recent health-related publications. Finally, before Science Clips is issued, the senior medical advisor from the CDC Office of the Associate Director for Science (OADS) peruses the articles from all three sections and selects the top ten for that week. The top ten are selected based on population impact and implementation potential.
Results: Science Clips was first issued on the CDC intranet in August 2009, and in June 2010, the Internet version was made available at www.cdc.gov/phlic/sciclips/. The CDC workforce benefits from seeing the publications from colleagues in the varied CDC Centers and geographic locations. Since June 2010, Science Clips has been distributed to approximately 5,500 subscribers of CDC's Health Alert Network. Science Clips is one step in an ongoing initiative by the CDC PHLIC and OADS to offer resources to public health workers at state and local levels. To date, the most popular subject category of Science Clips is chronic diseases and conditions. Two state public health departments have already featured Science Clips on their websites, and international audiences come from Southeast Asia, the Middle East, and Europe.
Conclusions: This poster illustrates the methods used to produce Science Clips and will review the statistics, feedback, and use of Science Clips.

147

Moving from a Print to Online Book Collection for Hospital Libraries

James R. Bulger, Manager, Library Services, Allina Hospitals & Clinics, Minneapolis, MN

Objective: The hospital library book collection was outdated and provided limited access to most users. We developed a project in 2008 to evaluate a possible solution by moving towards a more robust online book collection.
Methods: Library services staff undertook a small-scale survey to assess users' needs and preferences. We also performed financial analysis of print versus online collection building over a five-year period and evaluated the current state of the online book market, including purchase models.
Results: Our analysis confirmed that given our current challenges, it made sense to transition to an online book collection, retaining a small print collection for business continuity purposes. A five-year plan was developed, outlining print and e-book expenditures each year, with a goal of purchasing approximately eighty new titles per year, using a one-time purchase model where possible. This poster will show findings, steps taken, and progress toward implementation of our plan.
Conclusions: Analysis showed that moving toward an online book collection was the right decision. Usage data since then have affirmed our move in this direction.

150

How Well Are We Tracking Our Reference Statistics? A Usability Study on Electronic Reference Statistics

Vedana Vaidhyanathan, Librarian, Reference and Educational Services; **Emily J. Vardell,** Director, Reference, Education, and Community Engagement; **Kimberly Loper,** Special Projects and Digital Initiatives Librarian; Louis Calder Memorial Library, Miller School of Medicine, University of Miami, Miami, FL; **John Reynolds,** Reference Librarian, West Boca Branch, Palm Beach County Library System, Boca Raton, FL; **Tanya Feddern-Bekcan, AHIP,** Head, Education, Louis Calder Memorial Library, Miller School of Medicine, University of Miami, Miami, FL

Objective: After implementing an electronic reference statistics tracking system, does the new system allow more precise and easily tracked statistics?
Methods: The reference and education department used a paper system to monitor patron interactions and combined it with information from an electronic calendar to report statistics. Unfortunately, each librarian had a different way of self-reporting interactions on paper. To move away from this outdated and incomplete method, we pursued an electronic system for tracking patron interactions. Librarians explored commercially available systems and systems created by other libraries. We consulted with our in-house systems department about creating a database for tracking the transactions. Because of its ease of use and low cost, librarians chose to implement an online survey using SurveyMonkey to track patron interactions. An updated electronic survey was created using questions from the original print version with edits based on library faculty feedback. For consistency, the library staff added the survey link to their web browsers or as icons on their desktops. As a follow-up, librarians implemented a usability study to learn what revisions are needed. The study was conducted with library faculty and staff.
Results: Twenty-five out of 30 faculty and staff members completed an anonymous survey. Sixty percent of respondents answered that they record their patron interactions more than 75% of the time. Sixty-eight percent of respondents either agreed or strongly agreed that the "new online system helped them keep track of patron interactions." Usability observations confirmed that power users were quicker to complete the survey and had fewer questions. Those less familiar with the survey were less likely to report that they routinely used it. Ninety-two percent of those surveyed preferred the electronic system paper-based systems.
Conclusions: After almost a year of use, the new system has met the expectations of the developers and resulted in satisfied users. Due to the ease of development, ease of use, and low cost, SurveyMonkey has proved an effective alternative to paper statistics and many of the specialized statistical tracking systems.

153

The Genesis of a New Course in Critical Scientific Reading with a Wikipedia Project Component

Andre J. Nault, Head Librarian and Adjunct Assistant Professor, Veterinary Clinical Sciences, Veterinary Medical Library; **Robert J. Washabau,** Professor, Medicine, and Department Chair, Veterinary Clinical Sciences Department; University of Minnesota–St. Paul

Objective: We describe a case study in the development of a new graduate-level course on critical scientific reading for first-year veterinary students. The course was designed to educate students in literature search strategies and to stimulate their critical evaluation of scientific articles in basic, clinical, and translational research disciplines. The course is designed to reinforce the use of the scientific method in the evaluation of biologic and clinical problems and to encourage students to extrapolate and integrate concepts across disciplines, an important component of the One-Health initiative.
Methods: Course coordinators in the first-year curriculum at the college of veterinary medicine and the veterinary medical librarian organized a critical scientific reading course based on perceptions of additional need for information literacy, concept building, and scientific analysis. Students were asked to read and critique papers for scientific importance, validity of experimental design, statistical analysis, results, contributions to the literature, and merit of the study conclusions.
Results and Conclusions: A fourteen-week course with one-hour weekly meetings was designed for second-semester students.

The course began with didactic instruction from the veterinary librarian on literature searching, followed by a representative scientific reading and critique. Scholarly articles were selected for a cross-section of mechanistic and descriptive features, basic biology of relevance to veterinary medicine, high journal quality, hypothesis testing, use of multiple research disciplines in the generation of data, and relevance to clinical medicine. Papers were presented by groups of seven to eight students in "Journal Club" format using a standardized evaluation rubric. An additional class used a "point/counter-point debate" theme to discuss two papers presenting differing conclusions. Lastly, students were assigned a list of veterinary-related Wikipedia entries from which they were required to add meaningful information with source citations. To assess course outcome, a pre- and post-course evaluation tool was implemented to assess validity of the learning objectives.

156

Understanding Biomedical Terminologies: Development of Online Documentation to Facilitate User Comprehension

Patrick McLaughlin, Technical Information Specialist, MEDLARS Management Section, National Library of Medicine, Bethesda, MD

Objective: To produce web-based documentation to facilitate the usability of the Unified Medical Language System (UMLS) metathesaurus, a multipurpose biomedical and health terminology resource, by software developers, informatics researchers, librarians, and other information professionals.

Methods: User support needs were assessed through email requests, an email discussion list, training sessions, and discussions at conferences. Online documentation has been developed and integrated into existing training and educational materials. These new web pages provide overviews, statistical information, and sample data, which enable users to familiarize themselves with the content and structure of the terminologies in the UMLS metathesaurus. As terminologies are added or updated with each UMLS release, the online documentation is updated to reflect these changes. Creation of the web pages took place in two phases. The first phase covered the terminologies that had been updated in the UMLS metathesaurus between 2008 and 2010. The second phase included the remaining terminologies, many of which had not been updated in five years or more. The documentation was developed using hypertext markup language (HTML) and cascading style sheets (CSS), and content was collected from the UMLS production system and from online literature searches.

Results: Web pages were created for each of the 150+ terminologies in the UMLS metathesaurus. This documentation provides users with information about each terminology, including its purpose, scope, and content; its terms, codes, and relationships; its overlap with other terminologies; and how it is represented in the UMLS metathesaurus. In the past year, these web pages have received approximately 60,000 page views.

Conclusions: The UMLS metathesaurus is a large, complex tool, and its effective use depends on an understanding of its individual terminologies. The enhanced documentation serves as a useful resource for librarians and other information professionals who are interested in using the UMLS metathesaurus. Additionally, some of these terminologies have been designated as standards for the meaningful use of electronic health records. As the focus on electronic health information exchange increases, an understanding of the terminology standards that facilitate this exchange becomes ever more important.

159

Anatomy for Library Services: A Novel Way to Rethink Library Promotions

Catherine M. Boss, AHIP, Coordinator, Library Services; **Darlene Robertelli,** Librarian; **Chunwei Ma,** Systems Librarian; Booker Health Sciences Library, Jersey Shore University Medical Center, Meridian Health, Neptune, NJ

Objective: The Booker Library at Jersey Shore University Medical Center exhibits at close to forty health fairs annually. For the past three years, an anatomy teaching mannequin has been part of the library's exhibit table. The poster will demonstrate how the teaching mannequin has been used by the library staff to promote its library services and mission within Meridian Health.

Setting/Participants/Resources: The desktop teaching mannequin had organs made of a hard rubber. Each organ was of correct anatomical proportion and could be taken out and placed back in the mannequin. The mannequin was purchased by Meridian Health's Community Outreach Department some five years ago but was not used extensively.

Method: The Booker Library staff had been exhibiting at health fairs five years ago, using library books as talking points with some confusion. About three years ago, the outreach coordinator had the mannequin placed on the library exhibit table. Older adults as well as children have enjoyed seeing where the various organs are, and participating in an impromptu anatomy lesson often related to a recent surgery or health issue. The Booker Library staff have created various games using the mannequin and have worked the mannequin into presentations on library services.

Results: The Booker Library exhibit table initially did not have a display backdrop on its table. Current books were used as talking points to draw visitors to the library table. Visitors often would bypass the library exhibit table, commenting that they did not have any issues related to the displayed books. When the mannequin became part of the library exhibit, visitors stopped at the table with anatomy questions and took the time to hear about library services. The library received a beautiful display backdrop during the fall exhibit season. Initially, the number of visitors stopping at the library exhibit decreased until the mannequin was placed back on the table to help differentiate library services.

Conclusions: The desktop teaching mannequin has proven to be a key component in differentiating the library services exhibit table from the other departments exhibiting at health fairs.

162

Librarians Collaborating with Faculty for Scholarly Publication

Marie K. Saimbert, Information and Education Librarian, George F. Smith Library of the Health Sciences, University of Medicine and Dentistry of New Jersey–Newark; **Janette (Jenny) Pierce,** Public Services Librarian, Health Sciences Library at Stratford, University of Medicine and Dentistry of New Jersey–Stratford; **Pam Hargwood,** Information and Education Librarian, Robert Wood Johnson Library of the Health Sciences, University of Medicine and Dentistry of New Jersey–New Brunswick; **John T. Oliver,** Reference and Instruction Librarian, Augustus C. Long Health Sciences Library, Columbia University Medical Center, New York, NY

Objective: To move reference librarianship beyond the "desk side" and rethink librarian-user engagement, as well as librarian involvement with research, through more active collaboration with two nursing faculty to write a book on nursing and systematic reviews.

Methods: An opportunity to collaborate with two nursing faculty was presented to a liaison librarian. The faculty sought collaboration with librarians to write book chapters on evidence-based nursing and systematic reviews. The project included reference librarians working with nurses and nursing students

at other sites in our multicampus university. Part of the learning process for participants included nuances of how to write for inclusion in a book rather than a published paper; negotiations with book authors; and learning about the book publishing process, including industry-specific terminology, for example, what is a copyright editor, who is a reviewer, and when are contract amendments in order.
Results: Results include increased awareness of publishing process, how to work with faculty collaborators, process of writing collaboratively, art of negotiating honoraria, and librarian's perceptions of themselves as coauthors and equal collaborators with faculty, not just as "free labor" or at-will service professionals. Nursing faculty saw the scholarly role librarians play in the systematic review research process, beyond execution of literature searches. Librarians were recognized as full participants and listed as co-collaborators.
Conclusions: Faculty realized the vital role librarians play working with researchers and clinicians, assisting them in learning about realistic expectations for comprehensive systematic review searches (time demands and how to manage citations) and providing tips for conducting effective searches. Librarians realized that book publication involves an ongoing process and, similar to systematic review work, takes time. Effort and time invested in the project helped librarians realize that detailed negotiations, such as knowledge of demands and deadlines, should be discussed before embarking on a book project.

165

Bringing the Library to the Clinical and Translational Science Award (CTSA): An Online Community for Library-based Translational Science Initiatives

Adelaide M. Fletcher, AHIP, Online Educational Services Librarian; **Dana Abbey,** Consumer Health Coordinator, National Network of Libraries of Medicine, MidContinental Region; Health Sciences Library, University of Colorado–Denver Anschutz Medical Campus, Aurora, CO
Objective: To advance the role of library and information science professionals in Clinical and Translational Science Award (CTSA)-related initiatives through the creation of a robust, freely available online community for interaction.
Methods: Librarians at institutions with CTSA awards communicate and network via email discussion lists or leverage affiliations in medical and hospital librarian–oriented associations, often at the exclusion of other library or information science professionals. Developing an online community to support access to and use of the research knowledgebase created from CTSA programs will involve the following:
1. perform an environmental scan of CTSA and related communications channels for librarians and information professionals (IPs) to gain knowledge of existing resources and identify gaps;
2. identify known CTSA IPs and conduct informal interviews to garner appropriate questions for a web-based survey exploring platform selection;
3. compile a list of known platforms and their features, create and conduct a survey, and determine criteria for rating platforms;
4. solicit input from CTSA IPs to discuss future goals; and
5. create, promote, and evaluate use of online community.

168

Of Mice and Monographs: Assessing and Rebuilding the Veterinary Medicine Collection at an Academic Health Sciences Library

Marisa L. Conte, Clinical and Translational Science Liaison, Taubman Health Sciences Library, University of Michigan–Ann Arbor
Objective: The veterinary medicine collection at an academic health sciences library was not adequately meeting the needs of faculty, students, and research staff. This service gap became obvious as the library increased its outreach to clinical and translational researchers. To address this problem, a librarian conducted both a needs assessment and collection assessment, and used the results to begin rebuilding the library's veterinary medicine collection.
Methods: Needs assessment: The librarian used a number of techniques to learn about the information needs of faculty, students, and research staff, including a departmental needs assessment. These results were discussed with relevant campus entities, including bench scientists, research administrators, and representatives from the institution's animal use and care committee to generate more feedback. Concurrently, the librarian conducted a literature review and sought the advice of colleagues with experience in veterinary medical librarianship regarding core resources. Collection assessment: An inventory of library-owned or licensed information resources specific to veterinary medicine or laboratory animal medicine was conducted. Based on the information gathered, the librarian identified the major gaps in the library's collection of veterinary medical resources and submitted a proposal to rebuild the library's veterinary medicine collection.

171

An Educational Timeline: One Library's Involvement in Undergraduate Medical Education

Mark MacEachern, Liaison Services Librarian; **Whitney A. Townsend,** Liaison Services Librarian; **Kristen Young, AHIP,** Liaison Services Librarian; Taubman Health Sciences Library, University of Michigan–Ann Arbor
Objective: To provide medical students with educational interventions at strategic points throughout their undergraduate curriculum.
Methods: Librarians at a large midwestern university are heavily integrated in the first three years of the undergraduate medical school curriculum. The librarians first meet the students early in the first (M1) year to provide two training sessions, one optional and another mandatory. These early sessions provide students with a basic orientation to the information environment at the university, as well as an introduction to fundamental search functionality of PubMed, Ovid MEDLINE, and select psychosocial and e-book resources. The librarians provide another instruction session on advanced PubMed during the second (M2) year. In this session, the librarians also introduce students to evidence-based resources, such as Cochrane Database of Systematic Reviews, National Guidelines Clearinghouse, and ACP-PIER. During the third (M3) year, the librarians continue the evidence-based resource thread by revisiting systematic review and practice guideline resources, while adding instruction on drug (Micromedex) and point-of-care (Dynamed) resources. This poster will outline the current information resource curriculum at the institution and describe the goals and plans for future involvement, which potentially includes two additional courses.

174

Assessing Institutional Compliance with the National Institutes of Health Public Access Policy

Marisa L. Conte, Clinical and Translational Science Liaison; **Jean Song,** Research and Informatics Coordinator; Taubman Health Sciences Library, University of Michigan–Ann Arbor

Objective: This longitudinal study assesses compliance with the National Institutes of Health (NIH) public access policy at a large academic institution. A previous study reported compliance data for the first year of the policy's implementation. This collection of data from the second year allows a comparison of trends and creates a more robust profile of researcher compliance, helping to inform library efforts in outreach and education regarding open and public access issues.
Methods: The NIH public access policy requires that researchers submit to PubMed Central all peer-reviewed manuscripts deriving from NIH funds upon acceptance for publication. This study examines policy compliance during the second year of implementation to obtain data about all publications, including those subject to publisher embargoes. It compares first- to second-year compliance data to provide new information about institutional and researcher patterns. A list of citations was generated via a PubMed search using the following parameters:
• at least one author is a university affiliate
• declared NIH funding
• published April 2009–2010.
The list was refined to include only citations where a university author was the primary investigator of the NIH grant. PMCIDs were obtained for citations on the refined list. Data were collected and analyzed.

177

Constant Change in Acquisitions

Amy Faltinek, AHIP, Unit Assistant Director, Acquisitions, Preston Smith Library of the Health Sciences, Texas Tech University Health Sciences Center–Lubbock
Objective: To determine the streamlining needs of acquisitions' job duties in an electronic work environment.
Methods: Change is the one constant in the acquisitions department. The retirement of a long-term employee provides the opportunity to evaluate the workflow in the department and more specifically in the duties of that position. It also brings about the possibility of new ideas from a new employee. Cross-training offers the opportunity for a fresh look at the processes of acquisitions' jobs.
Results: The relocation of several of our finance and administration departments resulted in electronic invoices being submitted for payment via email. Also, we now receive electronic licenses that require electronic signatures before being sent back to the vendor representatives. Payment process changes also resulted in vendor specific purchasing cards. A shared folder accessible to all department employees was created, and weekly meetings are held to promote better communication among employees and to track workflow.
Conclusions: The future holds the possibility of more changes in the department for the sake of efficiency.

180

Expanding Liaison Librarian Roles and Use of School-based Liaison Teams

Deborah L. Lauseng, Coordinator, Liaison Services; **Nancy J. Allee, AHIP,** Deputy Director; **Marisa L. Conte,** Clinical and Translational Science Liaison; **Mark MacEachern,** Liaison Services Librarian; **Whitney A. Townsend,** Liaison Services Librarian; **Lorelei Woody,** Liaison Services Librarian; Taubman Health Sciences Library, University of Michigan–Ann Arbor
Objective: Expand liaison librarian services through involvement of internal liaison teams to meet the unique information needs for each health sciences school: medicine, dentistry, nursing, pharmacy, and public health.
Methods: Over the last several years, our Taubman Health Sciences Library liaison librarians have worked toward active involvement in their designated health sciences schools at the University of Michigan. Through participation in school-sponsored events and conversations with faculty, liaison librarians have learned about and responded to the unique information needs of each school. As partnerships in instruction and research grow and collaborative efforts succeed, demands for liaison services expand. The Taubman Health Sciences Library has established small internal "core teams" to work with the lead liaison to meet these increased demands. Each team is made up of two to five liaisons working closely with the lead liaison, who serves as the primary contact for the school. Of the five core teams working with our health sciences schools, each team contributes to the liaison services according to the distinctive needs of each school. Specifics of how each core team functions and how they address the information needs of the schools will be shared.
Results: Each liaison core team (medical education, dentistry, nursing, pharmacy, and public health) has moved from simply providing a triage method of addressing reference questions and consultation requests to utilizing goal setting for building collaborations and partnerships. While each team functions and plans independently, the success of each core team is evidenced through new or increased involvement on corresponding curriculum committees, increased level of evidence-based research instruction, and more responsive services to faculty, students, and researchers.
Conclusions: The utilization of "core teams" has expanded the liaison services previously offered by individual librarians. Our internal liaison team approach allows the unique information needs of the five health sciences schools to be addressed in a customized and tailored manner for advancing our health sciences partnerships.

183

Just Talking About It Helps! Rethinking Information Advocacy to Decrease Health Disparities and Promote Health Equity

Patricia J. Devine, Network Coordinator, Pacific Northwest Region, National Network of Libraries of Medicine, Seattle, WA; **James E. Anderson,** Clinical Informatics Instructor, University of Washington Medicine Information Technology Services, Harborview Medical Center, Seattle, WA
Objective: To (1) increase awareness of disparities in health care among medical librarians, (2) promote resources to providers related to increasing awareness of health disparities and health equity, and (3) provide access to information on health care disparities and health equity to medical providers.
Methods: Librarians will partner with clinicians to create a toolkit for use by medical providers. The toolkit will reside on an existing website (www.stop-disparities.org). Tool kit resources will include preformulated PubMed current awareness searches, bibliographic resources, and links to related resources. The *Journal of the American Academy of Physician Assistants (JAAPA)* has initiated an online column focused on health care disparities: "Eliminating Health Disparities: What Works?" The ongoing, monthly column features a partnership between a physician assistant author and a medical librarian resource coordinator. Research shows "the activation of egalitarian norms has the potential to prevent stereotyping." In other words, just talking about it helps. Librarians can take an active role in the activation of these norms by referring clinicians to data on disparities, including such data with search results, linking to continuing medical education on this topic, and providing statistics.
Results: The online column for *JAAPA* continues, with medical librarians working with physician assistants to create monthly

updates about health disparities research and informational tools. These resources are designed to assist clinicians as well as to provide medical librarians with resources to assist providers in integrating data about health disparities into their clinical practice and research efforts. Additionally, planning for a collaborative project between physician assistants and medical librarians is underway, aimed at providing access to a health disparities toolkit for medical librarians with the goal of promoting this toolkit to clinicians.

Conclusions: Medical librarians and physician assistants are well suited to partner in increasing awareness of health disparities. By working together in the designing and promoting of resources and information aimed at highlighting health disparities, physician assistants and medical librarians can decrease the impact of these disparities on patient care.

Poster Session 2
Tuesday, May 17, 1:00 p.m.–2:00 p.m.

Minneapolis Convention Center, Exhibit Hall A

2

Redesigning a Mobile-friendly Library Website: Lessons Learned

Jovy-Anne Rosario, Instructional Design Librarian; **Marie T. Ascher, AHIP,** Associate Director, User Support, Education, and Research Services; **Afsar Mohiuddin,** Library Network Systems Administrator; **Diana J. Cunningham, AHIP,** Associate Dean and Director; Health Sciences Library, New York Medical College–Valhalla

Objective: In early 2010, the health sciences library launched a mobile site for use by its constituents. Preliminary, informal feedback from users found the site to be inaccessible to some types of mobile devices. The current project began as an effort to reevaluate and apply best practices to the redesign of our mobile site. The goal is to determine the mobile information needs of our community and to create a user-friendly mobile site that meets those needs.

Methods: Online surveys and usability testing. Two surveys, a preliminary needs assessment survey and a follow-up evaluation survey, will be administered to affiliated student, resident, and faculty mobile device users, defined as the 137 users who requested a DynaMed Mobile serial number during fiscal year 2010. Aside from the content of the site, additional considerations such as browser support, screen sizes, and aesthetics will be addressed. The preliminary survey will identify the most commonly used mobile devices and target support for those devices. Based on the preliminary survey, a low-fi prototype of the site will be created and undergo usability testing. The redesign will be accomplished using Dreamweaver.

Results: Seventy-seven responses to the survey were received, mainly from students and faculty. A total of 67.5% of respondents reported having a web-enabled mobile device. Of those, Apple devices (iPhone, iPod Touch, and iPad) represent the majority operating system, while Android and Blackberry evenly split the remaining 40%. Tasks users identified as desirable on a mobile library website were in rank order: searching for journal articles, accessing full-text articles, searching databases, accessing e-books, and searching the online catalog. These priority tasks heavily influenced the design of the site and formed the base of our usability testing.

Conclusions: Usability testing of a low-fi paper prototype of the site is currently underway. Initial results indicate a few areas that require revision before the actual site is developed.

6

Putting the Teeth in Outreach: Patient Education at Free Rural Dental Clinic Using Mobile Devices

Meredith I. Solomon, Outreach Librarian; **Anna L. Tatro,** Liaison and Outreach Services Librarian; Liaison and Outreach Services, Health Sciences and Human Services Library, University of Maryland–Baltimore

Objective: To introduce and put into practice the concept of the Information Rx program created by the National Library of Medicine (NLM) at the Missions of Mercy Dental Clinic in rural Maryland, to familiarize the clinicians with point-of-need patient education materials available via mobile devices, and to demonstrate the utility of mobile devices such as iPads in a community clinical setting.

Methods: Two librarians from the Health Sciences and Human Services Library, University of Maryland–Baltimore, and one from the Western Maryland Area Health Education Center attended the two-day clinic. At the volunteer orientation, the librarians provided guidance on how to use the information prescription as well as demonstrated professional dental applications on the iPads to familiarize the dental health professionals with the accessible resources. During the clinic, librarians used iPads, laptop computers, and a wireless printer to respond to information needs of both patients and clinicians. In addition to handing out information packets, patient education videos and tutorials were streamed using MedlinePlus.

Results: As a result of attending the Missions of Mercy Dental Clinic, librarians acted as a support system for over 1,500 uninsured dental patients, volunteers, and clinicians; represented the value of librarians and libraries; and handed out over 250 health information packets that consisted of information about oral health, diabetes, hypertension, smoking cessation, and more. Over 35 iPad demonstrations were performed for clinicians, and information was provided for over 50 specific patient education questions.

Conclusions: Overall, the librarians' presence was well received. Clinicians appreciated the introduction to the use of iPads in patient education and clinical use. In the future, the librarians would like to be part of the initial implementation process earlier on and recommend providing a longer volunteer orientation to better familiarize the clinicians with resources available to them and services that the librarians can provide.

8

Creating an Orientation Video on a Shoestring

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Objective: To describe the creation of an orientation video for use in multiple health sciences schools student orientations, using readily available resources.

Methods: The University of Washington Health Sciences Library, which serves six health sciences schools, is constantly searching for new ways to promote library resources and services to incoming students. Each health sciences school has a yearly general orientation for their students, and the library liaison assigned to that school has an opportunity to present library information. For many years, liaisons have used more traditional orientation talks and live demonstrations of resources, but we desired to incorporate a livelier, attention-getting format as part of the orientation. However, budget cuts precluded purchasing professional filming or editing equipment. Instead, the nursing and medical school library liaisons decided to create a short, six-minute orientation video using already owned video production resources (Camtasia, iMovie, Photoshop, Audacity, and QuickTime Pro). The live action video's objective is to use a clinician-patient encounter to establish the information need and create the question that is then searched using our key e-resources for evidence-based information.

Results: Within two months, we wrote the script, chose "actors," collected costumes and props, "created" a care provider office, rehearsed, recorded, and produced the video. The video was presented at the medical and nursing student orientations in fall 2010. Lessons learned: Decide standards of video size and type preproduction; consistent audio quality can be a problem with multiple recording sessions; and although we produced the video in Flash and QuickTime formats to accommodate software variations on presentation computers, we still needed to contact technical support to assure adequate audio support and test video format.

Conclusions: With careful planning and organization, a library can produce a short orientation video on a limited budget or with already owned resources. The video can also be used in orientations with our other health sciences schools in the future.

9

Collaborating in the Cloud: Creating a Multi-authored Book Using Open Source Content Management and Social Networking Software

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Objective: To use collaboration technology to minimize the use of email to exchange documents, allow authors to see each others' drafts and search for topics covered, have easy document uploading, provide a secure place to store all documents related to the book, and have a separate space for editor-only documents.

Methods: A colleague experienced with the Joomla open source content management system set up and hosted a secure website for twenty-three chapter authors to upload their chapter drafts, figures, and permissions to produce the *Medical Library Association Guide to Managing Health Care Libraries, second edition*. Joomla is cross-platform software written in PHP that stores data in a MySQL database. The editors selected the elements for the site and created a naming convention for the authors to use for file management. The Joomla component called DOCman allowed documents to be organized in categories and authors notified when new documents were uploaded. A mail component was installed for convenient communication with all authors. IBM OmniFind Search software provided full-text search capabilities of the chapter drafts and first edition of the book. The editors set up a blog to communicate important information and support discussion on topics selected by the authors.

Results: Use of the Joomla content management system enabled the editors to easily track chapter drafts and communicate with the authors. The authors completed their first full chapter drafts in one year, enabling the editors to meet the publication deadline.

Conclusions: The editors believe that this complex undertaking would have been much more difficult and would have taken much more time without the multifunctional content management system.

11

Building a Discovery Tool Request for Proposal (RFP): A Compilation of Unique Components and Duplicative Integrated Library System RFP Data

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Objective: The university library analyzed traditional integrated library system (ILS) request for proposal (RFP) components and the unique characteristics of discovery tools to synthesize the data needed to successfully construct a viable discovery tool RFP.

Methods: The university library began analyzing the discovery tool and ILS products available on the market in February 2010 to determine if a system migration should be considered. The project consisted of researching the library literature to determine items most commonly incorporated into ILS RFPs, researching RFP best practices literature contributed from the business community, and reviewing vendor demonstrations of discovery tool products.

Results: A discovery tool RFP was devised that included relevant components suggested in the ILS RFP literature, coupled with concepts that are unique to discovery tool products. The resulting RFP also integrated data from the broader systems procurement literature.

Conclusions: A well-constructed discovery tool RFP may provide a framework for vendors when submitting bids to solicit university business and can serve as a guidepost for library staff when analyzing the current specifications of their existing systems. Building the RFP aids system migration committee participants in carefully analyzing existing systems and determining unique components of a discovery tool, while helping committee members become more educated about the library's needs and relevant discovery tool features offered by vendors.

13

Rethinking Our Mobility: Supporting Our Patrons Where They Live

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Objective: To describe the initiatives undertaken by the library to develop a mobile presence and support our patrons in a mobile environment.

Methods: With the rise in use of smart phones and other mobile devices by health care professionals and students, the library recognized the need to both develop a mobile library website and provide support to patrons trying to use library resources through a mobile device. The library planned a multipronged approach: an initial survey of our patrons to assess what resources they are using, the development of a mobile library website, a LibGuide to support the use of these resources, and live drop-in technology hours when patrons could get one-on-one assistance.

Results: The online survey provided a good snapshot of what our patrons are doing in the mobile environment. The drop-in technology hours were very successful, prompting the scheduling of additional sessions throughout the year. The mobile website was launched with great fanfare, resulting in impressive use of the site and encouraging feedback from patrons. Finally, the LibGuide statistics bear out the importance of having a resource available 24/7 to support users and provide a home for logistical specifics such as necessary logins, download procedures, and other technical details.

17

Healthflicks: Building Health Literacy among an Urban Teenage Population by Creating Online Health Videos for Public and School Health Curriculum Use

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Objective: The Healthflicks project gives high school students with interest in health careers an opportunity to develop and produce short videos on teen health problems and online health information. The goal of Healthflicks is to increase health information literacy among teenage populations, both for the participants and viewers. Students will also improve their health information literacy skills for future health careers.

Methods: Setting/Participants/Resources/Outputs: The project was launched in early 2010, supported by a National Network of Libraries of Medicine (NN/LM) subcontract grant. Yale University's Cushing/Whitney Medical Library is a short walk

from Hill Regional Career High School, a New Haven magnet school that features a health career curriculum track. Recruitment of students took place at the school, with the assistance of school staff and the librarian. Grant funds also supported the acquisition of video production and editing equipment, salary support, and publicity. College student video coordinators were hired as the primary trainer and mentor, providing continuity and caring for students.
Results and Conclusions: Outputs include a YouTube channel hosting a series of health topic videos immediately released upon creation to a wide audience, as well as a blog and social network pages for publicity. A Healthflicks Academy was presented in the medical library for a week during the summer of 2010, teaching students health information literacy to identify credible health websites. The Healthflicks project also was introduced into the curriculum of one health careers elective class, as well as the Health Occupations Students Association (HOSA) after-school student club, which entered a Healthflick into a video competition at their national meeting in spring 2011. The HOSA national meeting will occur after the end of the subcontract, becoming a tangible way to introduce Healthflicks into many US communities following the formal project conclusion.

20

A Survey of Core Medical Electronic Resources for Medical Libraries in Taiwan

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Objectives: Recently, the electronic resources became the primary collections of medical libraries. However, the budgets for e-resources can hardly meet the price increases, resulting in the library operation difficulties. Since 2000, many medical library consortia have formed in Taiwan, and they get better discount than ever before. Hence, if all of the medical libraries in Taiwan are teaming up, we can negotiate with vendors for more reasonable prices. Therefore, in March of 2010, the Medical Library Committee (MLC) of the Library Association of Republic of China decided to conduct a survey of all medical libraries to find out their willingness of participating in the MLC consortium and to identify the core medical e-resources to negotiate prices.
Methods: The researcher collected e-resources lists from the library websites of Taiwan's medical schools and medical centers, selected mostly subscribed e-resources, discussed on the MLC panel, and came out with a core medical e-resources list. Afterward, the researcher sent out a questionnaire to all 335 medical libraries in Taiwan. The questionnaire was mailed in print in June 2010, after 2 reminders, 180 copies were returned in August. With 153 valid ones, the return ratio is 45.67%.
Results: Analyzing the returned questionnaires: 65.36% of the libraries agree to participate in the MLC consortium. ANOVA analysis shows a significant difference among different types of libraries. The core medical e-resources in Taiwan are also identified, including 10 databases, 9 e-journals, 1 e-book, and 1 bibliography management tool.
Conclusions: From September 2010, the MLC emailed requests to e-resource vendors and received feedback in October. Due to time limit, vendors like UpToDate, MD Consult, BMJ, Wiley InterScience, and SpringerLink could not provide proposals for 2011; Cochrane Library, MicroMedex, CINAHL, and EndNote provided special offers for the small and medium-sized libraries. The MLC plans to accomplish the price negotiation by the year end and continue on more e-resources bargaining in the following years, so more products can be utilized with better price.

23

Implementation of Web 2.0 Tools in Health Sciences Libraries: A Nationwide Survey of the Landscape

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Objective: To assess the level of Web 2.0 implementation in health sciences libraries by examining 189 library websites for the presence of blogs, social media tools, short message service (SMS), LibGuides, and optimized mobile websites. By measuring the level of Web 2.0 implementation, the results might contradict notions that libraries are "slow to change."
Methods: To compensate for historically low response rates from electronic surveys, a manual evaluation of websites was used. With the list "Medical/Health Sciences Libraries on the Web," maintained by University of Iowa's Hardin Library for the Health Sciences, 189 health sciences libraries were identified. Due to the abundance of Web 2.0 tools available, the analysis was limited to the most commonly discussed service tools in library and information science literature. For each of the 189 websites, navigation links, site indexes, and search boxes were utilized to identify the presence of blogs, Facebook, Twitter, and SMS. To identify the use of LibGuides, Springshare's "LibGuides Community" list of participants was consulted. Two methods were used to detect the presence of a mobile website: accessing the desktop versions with Opera mobile and iPhone mobile emulators for automatic detection, and searching the desktop versions for links to optimized mobile websites.
Results: At the time of data collection, the most commonly implemented tool was chat, at 35%. The least commonly implemented tool was SMS, at 15%. Only 2% of libraries had implemented all 8 tools, and 40% had implemented no tools at all.
Conclusions: Web 2.0 tools are ubiquitous today, providing an Internet platform for interactive applications. Because they are easy to use, many health care professionals and organizations have adopted them for information discovery and sharing. As information professionals, it is our responsibility to keep current with technology that supports and enhances health sciences communication and education. With 40% of examined libraries having none of the selected Web 2.0 tools on their sites, the authors believe that health sciences libraries are indeed "slow to change." To overcome this challenge, librarians should participate in MLA webinars, online tutorials, and hands-on workshops that teach effective implementation of Web 2.0 tools.

29

Practice What We Preach: Collaborative Research for Evidence-based Collection Development

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Objective: To develop collection development tools via collaborative bibliometric research using a standard protocol and Web 2.0 tools. Goals include updating mapping studies conducted

a decade ago, mapping additional allied health and nursing disciplines, and publication of a core list of nursing journals.
Methods: The Nursing and Allied Health Resources Section (NAHRS) Research Committee's mapping and journal project subcommittees updated the protocol for the mapping the literature studies and explored the use of various Web 2.0 tools to enable and support the bibliometric research activities of the section. Tools employed included a private wiki for the section's mapping and journal list projects (separate from the section's publicly accessible wiki), and a spreadsheet for compiling journal title-specific data populated using Google forms. NAHRS Research Committee leaders debated how much to share with our research teams, who could edit, and how much to make public. Committee leaders worked with the section web editors to keep resources "in their place." The poster will showcase our research methods and results, published mapping studies, and impact as demonstrated by citation patterns. In addition, we will propose a model for evidence-based collection development that integrates research data with library data and institution needs.
Results: Initial updates to the mapping the literature of allied health studies were published in the *Journal of the Medical Library Association (JMLA)* in 2010, with several nursing and allied health studies in progress. We will demonstrate the revised mapping protocol and the research-based process for developing the first NAHRS nursing journal core list and link to NAHRS website information on our ongoing bibliometric research, including opportunities to get involved.
Conclusions: The information needs of nursing and allied health are interdisciplinary, not limited to publications in a specific discipline. Mapping studies and descriptive journal research is a valuable adjunct for collection development, especially for journals. It is not a substitute for assessing institutional needs and utilization patterns, and is most useful when adding or expanding programs. The NAHRS Core Nursing Journals list, including top cited titles from the mapping studies, should be supplemented with journals from other disciplines to meet the needs of nursing education and practice.

31

A New Role for the Library: Measuring Research Impact

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Objective: The main objective of this project was to develop a framework to document research outputs and activities, identify collaborative efforts, and assess the diffusion of knowledge and resulting research impact for an individual author or research group in a clinical and biomedical research environment.
Methods: This project involved analyzing the research study process in the clinical and biomedical research environment to identify tangible indicators of research impact that are not readily discernible using citation analysis. These indicators served as a foundation for a framework for documenting the dissemination of research outputs and resulting diffusion of knowledge into meaningful outcomes, such as contribution to the knowledgebase; change in understanding of a disease, disorder, or condition; change in practice; change in community health; or change in public law or policy. The authors also examined collaborative activities among authors and research groups to identify quantifiable indicators of collaboration in order to arrive at a framework that provides a meaningful narrative of research impact.
Results: The project resulted in creation of a framework, The Becker Medical Library Model for Assessment of Research Impact (www.becker.wustl.edu/impact/assessment/). The Becker model provides indicators of evidence of impact based on resulting diffusion of research outputs and activities and resources for locating evidence of impact, and it includes strategies that can be utilized by biomedical scientists to enhance their research impact.
Conclusions: The recent emphasis on demonstrating translational outcomes of research findings into clinical practice and community benefit has spurred a need for new methods beyond traditional citation metrics to document the impact of research. A number of resources are available to track diffusion of research impact in order to provide a meaningful assessment of policy, practice, and health outcomes. Libraries can play a role in helping biomedical scientists quantify the resulting synthesis of biomedical research findings that are not discernable via traditional citation analysis.

34

A Regional Strategy for Transitioning to a Knowledge Management Center (KMC) in a Health Care Institution

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Objectives:
1. What resources and training in knowledge management (KM) concepts will be required?
2. What new competencies and skills might be required for KM?
3. What are the components of the knowledge management center (KMC) template?
4. Does application of the template create more than one model?

Methods: In 2009, the subcommittee began defining a new way forward for hospital libraries, in the form of five key steps: (1) research the library literature, (2) compile a bibliography, (3) review articles on KM, (4) review curricula from various academic institutions offering degrees in KM, and (5) define core components for the KM model template. In November 2010, one of the city's leading teaching hospitals sent a proposal to the National Network of Libraries of Medicine (NN/LM), New England Region (NER), to fund a regional plan for pilot implementation of the KMC template. From December 2010 through March 2011, the NER funded development for: (1) a program to introduce KM concepts to the hospital library community and (2) a curriculum to assist libraries transitioning to a KMC. In March 2011, interested parties signed on as participants to pilot the model template at their institutions. In April 2011, pilot institutions were selected.
Results: Charged with promoting hospital libraries, the hospital library subcommittee (HLS) is part of the Regional Advisory Council of the NN/LM NER. In 2010/11, the NN/LM NER funded HLS to complete strategic planning for a multi-year project. Phase one deliverables included: (1) a training program to introduce KM concepts to regional hospital library community, (2) a guided curriculum to assist libraries interested in transitioning to KMC, (3) a compilation of competencies and skills required for knowledge management, (4) a template detailing components of the KMC model for implementation in a health care institution, and (5) a list of institutions interested in piloting the KMC template to create their model.
Conclusions: As part of its proposal for the next contract period with the National Library of Medicine (NLM), the NN/LM NER will request funding for pilot implementation of the KMC model template.

37

Quick Response Codes: Providing More Information in a Smaller Space

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Objective: To evaluate the effectiveness of enhancing digital signage with quick response (QR) codes to promote library services and resources.
Methods: Digital signage displays are commonly used in libraries to advertise services and resources to patrons entering or exiting the library. Ads rotate through a slide show as patrons walk by the entrance of the library. However, text conveyed in such a brief amount of time does not always provide enough context or content to fully describe the services, resources, and classes offered. At the same time, with the proliferation of smart phones, our patrons are carrying mobile computers in their pockets and expect to be able access information about the library. In fall 2010, the library added QR codes, two-dimensional barcodes that can be scanned with mobile phone cameras, to provide links to further content that can be viewed while the patron is walking away from the display.
Results: QR codes were added to most slides incorporated into the digital signage display, visible to patrons as they passed by the entrance of the library. Minimal addition time was needed for staff to create and add QR codes to individual slides. However, collected usage data show limited adoption of QR code use by patrons. The most frequently used code directs patrons to information on the library's hours.
Conclusions: QR codes are not yet incorporated into daily use by library patrons. Nevertheless, given the amount of staff time and overall desire of the library to provide information using technologically readily available to our primary clientele, the QR code project is still a valuable endeavor.

43

Net Health: Forging a Link to the Public Library

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Objective: This poster examines the partnership between the libraries of a major health system and a local public library that facilitates access to authoritative, substantive medical information for the public library patrons.
Methods: Atlantic Health developed a program in 2004 that was designed to help hospitalized patients and the public obtain reliable, up-to-date consumer health information without having to visit the library. In 2010, Atlantic Health expanded the program by placing a computer kiosk in a public library. An online request form is accessible on this computer or via a link on the public library website. All requests are filled within twenty-four hours and delivered in the format requested. Surveys are sent to all users of the program. The electronic packets contain a link to a survey on SurveyMonkey. The hard copy packet includes a survey with a stamped, self-addressed envelope. All hits to the Atlantic Health website are counted, and there has been an obvious increase of requests coming from the public library. The increases in use along with the results of the surveys are used to evaluate the program.
Results: Public library patrons are often reticent about asking for help from the hospital library, this program gives them the authorization they need to ask the many questions they have when they leave the doctor's office or when they need information about health issues or the medications they are taking.
Conclusions: The project is a public relations project for the hospital and a benefit for the citizens who access the service.

46

Rethinking Library Service to Distance Education Students: Analyzing the Embedded Librarian Model

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Objective: Himmelfarb Health Sciences Library has embedded librarians into Blackboard classes in the school of nursing and school of medicine and health sciences. We sought to determine the types of questions that students ask the embedded librarian, with the goal of informing future interactions with distance education classes to help develop a standard "protocol" for working with this particular population of students.
Methods: Qualitative analysis of classroom discussion board transcripts as well as email messages to determine the types of questions asked of the embedded librarian. Questions will be categorized to identify common patterns (such as general research guidance, citation management, off-campus access, and locating a book or article).
Setting: Online courses, taught via Blackboard between August 2009 and December 2010, in the school of medicine and health sciences or the school of nursing.
Population: Distance education students in health sciences or nursing courses.
Results: We reviewed 82 individual questions, which were asked in 16 online classes. The questions were grouped into 7 categories: using Himmelfarb resources, off-campus access to Himmelfarb resources, locating a book, locating an article, general research guidance, citation questions, and other. The category of general research guidance had the most questions (28), with citation questions (18) and using Himmelfarb resources (16) close behind.
Conclusions: The embedded librarian service at Himmelfarb has been successful; we have provided assistance to students on a wide variety of questions. We have learned that it is not easy to address certain issues via a discussion board or email. We continue to be embedded in online classes and have started to explore the use of tools, such as Elluminate Live, which will allow librarians to provide instruction at times that are convenient to students and in ways that might be more meaningful to explain or demonstrate specific concepts.

49

Enhancing Library Services: Utilizing Bibliographic Databases for Social Network Analysis

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Objective: Social network analysis has emerged as an important method for understanding research efforts and can play a role in helping to shape an institution's strategic direction and evaluating research programs. This project aims to utilize traditional bibliographic resources in developing value-added services such as social network analysis for an institution, department, or specialized research center.
Methods: Forty faculty from the University of Florida's Genetics Institute were selected for social network analysis, based on their academic standing (20 assistant and associate professors and 20 full professors). A literature search was carried out in both

Scopus and Web of Science for each group of faculty (both junior and more experienced faculty). The bibliographic data from the literature search was downloaded and subsequently used to create a network to compare collaborations, evidenced by coauthorship on papers. The social network analysis was carried out using the Network Workbench Tool (NWB) from the Cyberinfrastructure for Network Science Center, a freely available social network analysis platform, which is downloadable from the web.
Conclusions: Coauthorship networks can be an insightful and visually stunning approach to better understand collaboration efforts by academic authors. The NWB software provides both a visualization of the coauthorship patterns as well as quantitative metrics to describe the network. In this case, the different network visualizations allow viewers to understand differences in collaboration patterns between the two groups of faculty. Because the data used for this type of analysis are widely available through library subscriptions and because library staff have expertise in navigating these bibliographic databases, this type of analysis is an ideal service to offer through the library.

52

Federated Searching Websites with PubMed: Catalog of US Government Publications and NLM's Gateway

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Objective: The objective of this study was to compare two federated search engines that include PubMed and discuss the retrievals as a tool for extending the library's collection for readily available open access resources. Discussion will address when to choose the federated search engine and when searching PubMed in the native interface is also appropriate.
Methods: Several distinct search strategies (i.e., disease topic, health policy topic, toxicology topic) will be conducted in the US Government Printing Office's new federated search tool at metalib.gpo.gov as well as in the National Library of Medicine (NLM) gateway at gateway.nlm.nih.gov. Retrievals will be analyzed for availability of open access resources, ease of use to conduct the searches, and ease of use to identify available resources.

55

National Institutes of Health Public Access Policy and the University of Michigan Libraries' Role in Assisting with Depositing to PubMed Central

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Objective: On April 7, 2008, the National Institutes of Health (NIH) instituted the NIH public access policy. The policy requires all researchers receiving NIH funding to place ''an electronic version of their final peer-reviewed manuscripts upon acceptance for publication, to be made publicly available no later than 12 months after the official date of publication'' into ''the digital archive PubMed Central,'' thus making them freely available. The University of Michigan sought to offer unique support to its researchers by offering a deposit service.
Method: Peer-reviewed manuscripts are deposited via the NIH Manuscript Submission System (NIHMS) to comply with the NIH public access policy. University of Michigan librarians learned that NIHMS provided a publisher interface for journals to deposit author papers and thus assist with compliance, and they thought that arrangements could be made with NIH to utilize such an interface to assist their own researchers with depositing into NIHMS. Working with staff at NIH and with the guidance of the coordinator of Deep Blue, the university's institutional repository, the libraries created a publisher account with the NIHMS system that authorized librarians to deposit on behalf of multiple researchers, rather than having to access each author's individual account.
Results: Once the system was fully operational, the libraries at the University of Michigan began to offer the service to researchers who needed to comply with the policy. Five librarians rotate on a weekly basis to deposit manuscripts into NIHMS. The service has been well received by University of Michigan researchers; peak times occur when there is an NIH grant deadline for competing or non-competing grants and when grant progress reports are due.
Conclusions: This poster will illustrate the deposit system that University of Michigan Libraries have established, which could serve as a model to other libraries in providing support to their own NIH researchers in complying with the NIH public access policy.

58

Determining How Physical Therapists Get Their Information to Support Clinical Practice

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Objective: Physical therapists play a vital role in a patient's outcome. It is important to be credible and to maintain ethical decision making by utilizing evidence-based information when making patient-management decisions and interventions. The aim of this survey-based study was to determine the sources that physical therapists depend on for information to support their clinical practice decisions. The study examined how various factors impact a practitioner's information-seeking behaviors. Finally, the study examined how frequency of sources utilized today has changed since an earlier study.
Methods: An invitation to take the survey, a consent form, and instructions were sent out in electronic format as a link on the following American Physical Therapy Association email discussion lists: orthopedic, neurology, and pediatric sections. The Zoomerang online survey system captured responses from 197 subjects. The data were downloaded to a spreadsheet, and SPSS software, version 17, was used to complete data analysis, particularly descriptive statistics to characterize the responses.
Results: Among physical therapists practicing more than fifteen years, databases were used most often. Among physical therapists practicing less than fifteen years, colleagues were used most often. Therapists practicing in no or limited direct access states used journals and databases more often than therapists practicing in states with direct access. Therapists practicing with a bachelor's and/or master's degree used journals and databases more often than therapists with a doctorate degree.
Conclusions: Physical therapists practicing longer are more likely to use Internet databases than colleagues or personal books. Physical therapists in states with no or limited direct access are more likely to use evidence-based sources compared to the states with full direct access. Clinicians with doctoral degrees are less likely to use evidence-based sources than clinicians who have a master's or bachelor's degree. A previous study reported colleagues as the most used sources, while journal articles are the most used source by physical therapists in the current study.

61

Rethinking Responsible Literature Searching Using LibGuides

Dana Gerberi, Librarian; **Dottie Hawthorne, AHIP,** Librarian; **Karen Larsen,** Librarian; Mayo Clinic Libraries, Mayo Clinic, Rochester, MN

Objective: We describe the rethinking of an existing online program designed to improve library users' literature searching skills. Our rethinking resulted in the use of LibGuides to develop an effective database searching guide.

Program Description: Drawing from the Responsible Literature Searching project developed by the Health Sciences Library System, University of Pittsburgh, Springshare's LibGuides software was used to create an effective database searching guide. Library databases are organized by broad subject categories with a tabbed design in the guide. Each section includes nontechnical descriptions of database strengths and limitations, and links to help materials. A tab for specialized tools including cited reference searching, the h index, and journal impact factors was added based on users' frequently asked questions. New elements include a visual site map for the novice user of the guide and an overall database comparison chart. Project goals consisted of designing a resource to assist library users in selecting the best database for their searches and giving them immediate access to news and help information. In addition, library staff wanted a resource that would be easy to update and maintain. Future enhancements include developing an interactive database decision tool and adding more databases to the guide.

Evaluation: Librarians with different subject specialties reviewed and provided constructive feedback to strengthen and enhance the guide's content. A user survey is built into the guide enabling us to get input about its content and usefulness.

Outcome: The LibGuides software has proved to be an effective interface to help our users develop their search skills, and it has met our goal for ease in updating and maintenance. An added benefit of the guide is its usefulness in helping our library staff update their database knowledge and skills for sources they use infrequently.

Conclusion: Rethinking the format and content of an existing educational program transformed it into a dynamic tool for an academic health care institution's diverse group of users and for our library staff.

64

From Analog to Digital: Making Archival Materials Electronically Accessible

Dee Jones, AHIP, Head, Cataloging Section; **Deidra Woodson,** Metadata and Digitization Librarian; Medical Library, Louisiana State University Health Sciences Center–Shreveport

Purpose: The purpose of this project is to identify, digitally preserve, and make accessible primary source materials that document the history of the Louisiana State University Health Sciences Center-Shreveport. This poster will describe the steps involved in establishing procedures, making decisions, setting policies, and addressing challenges.

Brief Description: An initial assessment of the archival collection led to the identification of significant materials that would best represent the institutional history. Accessibility in an electronic environment required the digitization of these resources. Newspaper clippings, photographs, slides, correspondence, programs, publications, and other documents were scanned to produce digital surrogates. Audiovisual materials including filmstrips, audiocassettes, and videocassettes were converted from analog to a digital format. Images of three-dimensional artifacts were captured through digital photography. CONTENTdm, a content management system, was used to establish bibliographic control of the digital files through metadata tagging.

Results: After the primary source materials were digitized, and metadata were assigned, the resulting digital files were made accessible through two online resources. The first is a chronological website celebrating the history of the Louisiana State University Health Sciences Center–Shreveport and the second is the Louisiana Digital Library, an image database maintained by the Louisiana Library Network that documents the history and culture of Louisiana. CONTENTdm software powers the database, making the digital images searchable and accessible.

Conclusions: This project has led to discoveries of unknown resources and unlocked hidden riches of the institution's history. Furthermore, the online presence makes these digital items accessible to a worldwide audience.

67

Mapping the Literature of Nurse Anesthesia

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Objective: To identify and analyze the core literature of nurse anesthesia as part of the Nursing and Allied Health Resources Section's (NAHRS's) project to map the literature of nursing and allied health professions.

Methods: Using the NAHRS project protocol, a literature review was conducted to gather background information about the field of nurse anesthesia. One source journal was identified after consulting the Brandon/Hill lists, Ulrichsweb Global Serials Directory, and nurse anesthesia faculty at the authors' institutions. Citation data for all reference types were compiled for a three-year period (2007–2009). References were then sorted into three zones, ranging from most cited journals to least cited journals, based on Bradford's Law of Scattering. Titles in zones 1 and 2 were then checked for indexing in MEDLINE and CINAHL.

70

Rethinking the Role of Clergy as Consumer Health Educators

Rick Wallace, AHIP, Assistant Director, Quillen College of Medicine Library; **Bruce Behringer,** Associate Vice President and Executive Director, Office of Rural and Community Health and Community Partnerships; **Grace Ghansah,** Doctoral Student, Public Health; **Nakia Cook, AHIP,** Clinical Reference Librarian, Quillen College of Medicine Library; East Tennessee State University–Johnson City

Objective: Many people in the Appalachian region turn to their churches in times of crisis. A diagnosis of cancer is seen as a personal and family crisis. The purpose of this study is to partner with a regional comprehensive cancer control coalition and an interdenominational group of religious professionals to identify, develop, and test contents for a set of classes to better prepare and educate religious leaders who regularly are required to assist their church members with a diagnosis of cancer.

Methods: This project will be done in four steps.

1. identify elements of a cancer curriculum for preachers
2. develop learning modules and install lessons on computer tablets
3. pilot use of tablets with two clusters of two community preachers
4. evaluate changes in knowledge and sense of communication with medical professionals

Data will be analyzed using focus groups both before and after the use of the tablets with the community preachers.

Results: Two cohorts of eight pastors were selected from two remote rural regions. Four modules were located on iPad devices that covered various aspects of consumer health information including MedlinePlus, communication issues, and development of health information outreach as a component of ministry. Data collection and analysis is ongoing.
Conclusions: Using clergy and other nontraditional delivery venues for consumer health information is well worth pursuing.

73

Weeding! Yikes! Rethinking Library Space!

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Objective: To describe the planning, implementation, and completion of a book weeding project at an academic health sciences library. The experience gained from this project can be used to provide guidance to other libraries faced with rethinking space.
Methods: Weeding is a project that everyone puts off until they have to do it. Pressures for space in an institution, shifts to electronic format, and the availability of offsite storage have all impacted the traditional model of space allocation for print collections. The goal of this project was to make 6,500 square feet available for reallocation to office and meeting space with construction of a new learning center. Lessons learned from an earlier weeding were integrated into the planning, particularly the need for well-defined criteria for retention, storage, and discarding. Librarians and other professional staff were assigned sections of the collection to review and mark, with a committee providing oversight. An improved process for updating the online public access catalog was also developed.
Conclusions: Issues identified during a previous weeding necessitated a more thoughtful approach to this project. As a result, we did more advance planning, provided more staff training, and assigned tasks more selectively. The outcome of weeding was a more viable book collection that is easier to access. Space is now available for reallocation

76

Meeting the Information Needs of Mental Health Professionals Who Care for Children Who Have Experienced Trauma

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Objective: To present and describe the process of developing, creating, promoting, and maintaining information resources and services for a diverse network of mental health professionals who care for children who are displaying psychological and behavioral symptoms as a result of experiencing trauma.
Setting: The National Child Traumatic Stress Network (NCTSN) endeavors to advance effective interventions and services to address the impact of traumatic stress on children. The network, comprising over 63 academic and community centers from across the United States, serves as a national resource for developing and disseminating evidence-based interventions, trauma-informed services, and public and professional education.
Methods: Librarians at the National Center for Child Traumatic Stress, which promotes and maintains the network structure, faced the challenge of developing, promoting, and maintaining information services and resources to support practitioners located in centers scattered across the United States. This poster highlights the services and resources librarians designed and now use to respond to the diverse information needs of network members. Specific services and resources presented will be information services, topic alerts, literature on demand, knowledge bank, military family knowledge bank, and web-based resources.
Conclusions: An analysis of usage statistics shows network members and the general public use and value the services provided by the National Center for Child Traumatic Stress librarians. In addition, a survey completed in 2009 indicates the information services librarians provide services that fulfill network members' information needs. Statistics reveal little utilization of literature on demand service. Librarians are considering the best ways to encourage network members to use this service. The number of resources in the knowledge bank and military family knowledge bank has been increasing steadily, and librarians continue to work with network members to update information on NCTSN website. In conclusion, librarians learned it is important to provide easy access to information resources via the Internet. Network members, both through statistical data and anecdotes, agree the services provided are easy to access and provide the necessary information.

79

Library Outreach to Occupational Therapy Fieldwork Educators

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Objective: The purpose of this study is to examine the effectiveness of a library outreach program to occupational therapy fieldwork educators in the form of an online evidence-based practice (EBP) research tutorial.
Methods: This study explores, via questionnaire, the research needs of and the resources available to occupational therapy fieldwork educators, as well as their perceived comfort level with EBP and the translation to clinical application. An online tutorial will be developed based on the input from the needs analysis and current EBP resources. This study will also examine data collected from a pre/posttest assessment administered to occupational therapy fieldwork educators in conjunction with the online tutorial to establish whether this type of library outreach program is an effective way to provide EBP instruction to occupational therapy fieldwork educators.
Results: It is anticipated that this type of outreach will be helpful to occupational therapy fieldwork educators who may feel that their fieldwork students are more versed in retrieving and incorporating research into daily practice.
Conclusions: Results will be discussed.

82

The Role of a National Conference in Engendering Support and Adoption: VIVO 2010

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Medical Library, School of Medicine, Washington University, St. Louis, MO; **Sara Henning,** National VIVO Marketing Coordinator, Health Science Center Library, University of Florida–Gainesville; **Katy Börner,** Victor H. Yngve Professor of Information Science; **Jennifer R. S. Coffey,** Graphic Designer; School of Library and Information Science, Indiana University–Bloomington; **Alicia Turner,** Management Analysis Coordinator, Information Technology; **Nita Ferree, AHIP,** Reference and Liaison Librarian, Health Science Center Library; **Mike Conlon,** Associate Director and Chief Operating Officer; **VIVO Collaboration,** Working Group, Clinical and Translational Science Institute; University of Florida–Gainesville

Objective: VIVO is an open source semantic web application that enables discovery of research and scholarship across an institution through the use of detailed researcher profiles. The 2010 VIVO Conference was conceived to engage members of academic, governmental, and commercial institutions in workshops and scholarly presentations on linked open data, researcher profiles, library involvement, and the VIVO application.

Methods: VIVO is under development for nationwide use as part of a 2-year, $12.2 million National Institutes of Health grant. A 2-day conference was held in August 2010 to connect the growing community of VIVO adopters, potential adopters, and other interested parties to the developers, librarians, and other team members who make up the VIVO Collaboration. The conference offered 3 hands-on workshops, over 25 research presentations, and 20 posters covering everything from specific details of VIVO implementation to broader questions of how research networks grow and function. Conference attendees came from across the scholarly spectrum and demonstrated the scope of interest in VIVO across geography, affiliation, and functional role. This poster will illustrate the growth of VIVO adoption and present highlights from the conference, including materials, content, and feedback gleaned from panel discussions and an interactive closing session.

Results: The national conference provided a forum for participants to discuss VIVO implementation and development, semantic web technology, and opportunities created through national networking of researchers. Both VIVO team members and outside participants offered insights into future projects that can be pursued using VIVO and related technology. The variety in programming and opportunity for in-person interaction helped create a VIVO community broader than the grant-funded VIVO Collaboration. Participants learned about progress thus far and offered feedback about future directions that would best suit their needs. Interest in VIVO adoption and development, measured by new web visits and code downloads, grew noticeably after the national conference.

Conclusions: Scholars, developers, and researchers from around the world see the value and potential of VIVO. The national conference offered this diverse group the opportunity to engage with the VIVO team and with each other, forming a community that will nurture future development and adoption.

85

From Fire Hose to Drinking Fountain: Collaborating with Nursing to Create a Unit-specific Web Portal

Nathan Norris, AHIP, Information Specialist, Knowledge Services; **Emily Keenan,** Nursing Unit Educator; **Christine Saba,** Clinical Nurse Specialist; Beth Israel Deaconess Medical Center, Boston, MA

Objective: Our medical center's clinical portal is an oversized collection of thousands of applications and resources, making it difficult for specialized nursing staff to obtain specific applications, forms, etc., needed for patient care (the "fire hose" effect). Our goal was to improve efficiency for unit-based nurses by creating a better portal with information specifically designed to support them.

Methods: An interdisciplinary team (one information specialist, one unit-based educator, and one clinical nurse specialist):

- researched portal software and selected LibGuides to develop a beta portal for a colorectal nursing unit
- surveyed colorectal nurses to identify most appropriate content
- developed a unit-specific portal for colorectal nurses and placed a link on the hospital portal
- produced an online survey and used the feedback for real-time site improvement
- measured usage and monitored feedback during a forty-five-day test period

Results: During the test period, the portal generated 3,606 page views and 52 evaluations in support of this project both from inside and outside the nursing unit. We prepared and presented our project to nursing leadership. The beta site came to the attention of:

- additional nursing floors, creating demand for knowledge services
- corporate communications, which used the feedback we gathered to help to create a new internal portal for the medical center

Conclusions: The clinical portal was a "fire hose" of information that needed to be winnowed down to a selection of applications and resources that were relevant to a specific nursing unit. By utilizing library software (LibGuides), we were able to gather and organize the information needed for this unit.

88

Impact of Viewing a Patient Education Video prior to Colonoscopy on Knowledge, Anxiety, and Satisfaction

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Objective: To determine the impact of viewing a patient education video about colonoscopy prior to scheduled colonoscopy versus the day of the appointment on informing and preparing patients for colonoscopy and improving the informed consent discussion.

Methods: All patients are mailed a written handout with background information about colonoscopy ten to fourteen days prior to the procedure. Patients will either receive additional written information on how to access a video on colonoscopy or will not receive additional video information. Prior to the procedure, all patients complete demographic and knowledge questionnaires and rate anxiety using a visual analog scale. The video information group proceeds with informed consent and the procedure. The no video information group views the colonoscopy video in the pre-procedure room and proceeds with informed consent and the procedure. All patients are given a satisfaction survey related to the colonoscopy information and informed consent process and are asked to return the survey via a postage paid envelope.

Results: A total of eighty-seven patients completed demographic and knowledge questionnaires and rated their anxiety. Of those patients, twenty-four received the video information and watched the video prior to their appointment; twenty-seven received the video information, did not watch the video prior to their appointment, but watched the video in the clinic office; and thirty-six did not receive the video information prior to their appointment, but watched the video in the clinic office. Twenty-seven patients returned the satisfaction survey. Statistically

significant differences between the groups were not found for knowledge, anxiety, or satisfaction.
Conclusions: No statistically significant differences in knowledge about colonoscopy, anxiety, or satisfaction with the received education were found between patients who watched a video on colonoscopy prior to their appointment and patients who watched the video the day of their appointment.

91

Increasing Health Knowledge with Multimedia Computer-assisted Education

Kelly Near, Outreach Librarian, Claude Moore Health Sciences Library; **Cassandra Morelos,** Doctoral Student, School of Nursing; **Mohan Nadkarni,** Associate Professor and Medical Director, University Medical Associates; University of Virginia–Charlottesville; **Indu Chelliah,** Student; Yale University, New Haven, CT
Objective: To determine if patients' knowledge of their medical conditions improves after taking a computer-based educational tutorial during an outpatient visit.
Methods: In this pre-post study, conducted at an outpatient internal medicine clinic, English-speaking adult patients, aged 18–65, with the diagnosis of hypertension (n=45), were recruited to complete a socio-demographic form and a knowledge questionnaire about their medical condition. Participants were randomized to receive either usual patient education or usual patient education plus the addition of an online, self-paced MedlinePlus tutorial. Patients were contacted approximately 2 months after their initial visit and given the same knowledge questionnaire by phone. A *t* test was used to determine outcome comparisons between groups.
Results: A 2-tailed independent sample *t* test showed significant improvement ($P<0.05$) in the intervention group (n=21) of 0.76 with a standard deviation of 1.136. Control group (n=15) mean improvement was 0.00, with a standard deviation of .655.
Conclusions: This study demonstrates that patients completing an interactive computer tutorial achieved greater subject knowledge of their medical condition than those receiving usual patient education in an outpatient setting.

94

Ophthalmology Patient Education Resources on a Shoestring: Providing Services with Limited Staff, Time, and Budget

Gale A. Oren, AHIP, Associate Librarian, Kellogg Eye Center, University of Michigan–Ann Arbor
Objective: In April 2010, the eye center at the university completed an extensive building expansion program. All of the patient clinics moved into the new tower and the expanded facilities offered new opportunities for patient services. The library was given space to set up patient education resource rooms in four of the clinics and to select and provide materials for four additional clinics. This poster will cover the planning, resources, promotion, and challenges faced in developing this new service.
Methods: Patient education resource rooms and web pages were developed for the retina, glaucoma, cornea/ refractive surgery, and comprehensive clinics in the eye center. In addition, materials were selected for the neuro-ophthalmology, oculoplastics, low vision, and pediatric clinics. A consumer health service dealing solely with eye disease is unique. The focus of this narrative will be on the challenges faced in operating unstaffed resource rooms with limited time and budget, and on the resources developed.
Conclusions: Lessons learned of interest to other librarians will be discussed.

97

Identify Underserved Populations in a Metropolitan Multi-branch Public Library District and Target Collection Development and Programs to Meet User Needs

Steve T. Dimoulas, Health Sciences Librarian, Health Sciences Library, Las Vegas Clark County Library District, Las Vegas, NV
Objective: To identify diverse populations and reveal underserved and fragmented populations based on "Civic Model: Tapestry Market Segmentation System." Distinguish key characteristics and patterns of library users to help bridge the gaps in the collection of materials and programming of consumer health resources.
Methods: Population: A public health sciences library in an urban metropolitan area, serving diverse communities and populations (library patrons, patients, health care professionals, and library staff).
Description: The first part of the research will use the Tapestry Market Segmentation System, with a specific focus on the segments discovered in the metropolitan library district. This document includes two sections: background information on market segmentation and a description of each of segment defined. Second part, use compiled data to define patron diversity, simplify marketing campaigns, describe lifestyles and life stages, and incorporate a wide range of data from the library district's circulation statistics to develop consumer health collection strategies and marketing campaigns.
Results and Conclusion: It is anticipated that successful collection development strategies and marketing campaigns will be developed and implemented to promote the library district's consumer health sciences collection and services. The analysis provided insight as to how patrons were using the health sciences library and services. Based on statistical and market segmentation discoveries, data analysis formed a concrete correlation of customer types to material types and the need of different marketing strategies build on user characteristics and patterns. The tapestry model enabled us to use a supply-based approach on demand in understanding customers and prospective customers' needs. An important result of the analysis came from comparing material types. Nonprint material was highly favored by most segments. By developing targeted marketing programs to increase use of both print and nonprint materials by underserved segments and identifying segments with similar characteristics, it is more likely to increase the use of these resources.

100

Preparing for the Ideal Library Space

Hannah F. Norton, AHIP, Reference and Liaison Librarian; **Linda C. Butson, AHIP,** Consumer Health and Community Outreach Librarian; **Michele R. Tennant, AHIP,** Assistant Director and Bioinformatics Librarian, Health Science Center Libraries and UF Genetics Institute; **Cecilia Botero,** Associate Dean, George A. Smathers Libraries, and Director; Health Science Center Libraries, University of Florida–Gainesville
Objective: To assess the library space needs and preferences of our students, faculty, and staff to inform health sciences center library remodeling plans for our thirty-six-year-old space and improve library services. Identifying user needs and the characteristics of library spaces that they value are key to remaining a place that is well used.
Methods: Technology has dramatically changed the way students and faculty access and use library resources. The increase in collaborative learning has brought an influx of students looking for spaces in which they can interact and cooperate with each other. The need for quiet study space is still vital, so the library must position itself to accommodate the multitude of needs that our customers have. These changes, along with evolving roles

for librarians in meeting the information needs of their various constituencies, necessitate rethinking and updating our library space. In the fall of 2010, the health science centers library conducted a seven-question survey asking students, faculty, and staff what they want and need in an ideal library space. This study reports our findings and how we have used those data to improve the library's physical space.
Results: Our users are keenly aware of the advantages and challenges of our current library space and offered numerous suggestions for potential improvements. The three areas most frequently addressed were computers and technology, group study spaces, and furniture. Our patrons greatly appreciate the computers that are available both for group and individual study and desire more computers and additional technology. Respondents expressed a need for more comfortable reading space throughout the library, particularly more comfortable furniture. The health sciences center library has used information gleaned from this survey to begin discussions about library space needs with nonlibrary administrators, to prioritize plans for a phased renovation, and to guide decisions about new furniture and computer purchases. Upcoming focus groups will further inform future renovation planning.
Conclusions: Patrons at an academic health sciences center have diverse needs regarding library spaces; eliciting their input is vital to any renovation or building planning.

103
Publishing for Greater Impact: Giving Researchers a Competitive Edge
Aileen McCrillis, Research Librarian, NYU Health Sciences Libraries, New York University–New York
Objective: Scholarly publication is the most important method for disseminating knowledge gained from scientific research. Because researchers are often evaluated by where they publish and the frequency of citations of their work, strategic publication is imperative. The New York University (NYU) Health Sciences Libraries aim to support biomedical researchers by acquiring publication-planning resources, developing hands-on workshops covering bibliometrics and publication strategies, and providing specialized services to assist with all stages of writing for publication.
Methods: The NYU Health Sciences Libraries developed the workshop "Publishing for Greater Impact," which covers important considerations for selecting a journal, including specialty and scope, impact factor, time to publication, acceptance rate, publishing model, and database indexing. Workshop attendees learn how to find this information using the publication planning resources available through the NYU Health Sciences Libraries, such as PubsHub, Journal Citation Reports, and the analysis features in Web of Knowledge. The workshop also promotes the library's other publishing-related services such as PubMed Central submissions, EndNote training, and submission discounts to open access journals.
Results: Workshop attendance levels and feedback from attendees have indicated this material is of great importance to the NYU community. Attendees have reported the workshop has allowed them to make informed decisions regarding where to publish and a better understanding of citation metrics. Library instructors have been invited to present at several academic department meetings and have received numerous requests for consultations.
Conclusions: Among academic researchers, there is a demand for assistance at all stages of writing for publication. Library services must go beyond traditional services of literature searching and reference management to meet the needs of researchers.

106
You Have Become a Liaison Librarian, Now What? Getting in and Going Forward
Linda C. Butson, AHIP, Consumer Health and Community Outreach Librarian; **Beth Auten, AHIP,** Reference and Liaison Librarian; **Ellie Bushhousen, AHIP,** Assistant University Librarian; **Nita Ferree, AHIP,** Reference and Liaison Librarian; **Rae Jesano, AHIP,** Assistant University Librarian; **Jennifer A. Lyon, AHIP,** Clinical Research Librarian; **Rolando Garcia-Milian,** Biomedical Sciences Librarian; **Hannah F. Norton, AHIP,** Reference and Liaison Librarian; **Michele R. Tennant, AHIP,** Assistant Director and Bioinformatics Librarian, Health Science Center Libraries and UF Genetics Institute; Health Science Center Libraries, University of Florida–Gainesville
Objective: The liaison librarian role implies that you know your group, provide services they need, and bring their concerns back to the library. How do you become a member of their team? The purpose of this study is to identify keys for success and useful tactics to become integrated with the group being served.
Methods: Integrating a liaison librarian into a target department or program can be a significant challenge, and each situation is unique and dependent on the personality of the liaison and the ethos of the group. There are as many ways to become a valued participant as there are groups to join. In 2009/10, the University of Florida Health Science Center Libraries' liaison program reorganized our liaisons, shifting alignments and incorporating five new liaison librarians to ensure that all departments and colleges were fully supported. Drawing on our experience and a survey of the literature, we have identified strategies used to integrate these new liaisons. This poster will report the results of our experience and describe useful strategies for librarians who are new liaisons or changing liaison responsibilities to a new group.
Results: Liaison librarians from the University of Florida Health Science Center Libraries met to review their successes and challenges in developing relationships with their departments and groups. Examples of successes were enumerated. A myriad of strategies and attributes were identified. It was determined that no one strategy works with all groups. What works with one group may not work with another. Availability, confidence, flexibility, and tenacity are attributes of the successful liaisons. Communication, a passion for the discipline, subject knowledge, searching expertise, and incorporation of multiple strategies to confront the challenges encountered are skills to enhance liaison relationships.

112
A Rose by Any Other Name: Mapping of Medical Eponyms to Medical Subject Headings (MeSH) across Selected Systems
Mary Shultz, AHIP, Health Sciences Librarian; **Ryan Rafferty,** Assistant Health Sciences Librarian; Library of the Health Sciences-Urbana, University of Illinois–Chicago, Urbana, IL
Objective: Eponyms are those terms derived from a person's name. The field of medicine is rich in eponymic terminology: Parkinson's disease, Lou Gehrig's disease, Munchausen syndrome, etc. While these examples are widely used, there is an abundance of less common medical eponyms that could lead searchers astray if adequate Medical Subject Headings (MeSH) mapping is not in place. The purpose of this study is to evaluate how various MEDLINE interfaces map eponyms to the MeSH vocabulary.
Methods: The interfaces used in this study were: the PubMed MeSH database, the PubMed Automatic Term Mapping feature, the National Library of Medicine (NLM) Gateway Term Finder, and Ovid MEDLINE. Eponyms were randomly selected from

three print sources. The test data set included approximately fifty eponyms. Each eponym was entered into each MEDLINE interface to determine if it mapped to a corresponding MeSH term.
Results: Preliminary results indicate that PubMed MeSH Browser has the highest matching rate for eponyms at 87%, followed by both the NLM Gateway Term Matcher and Ovid MEDLINE at 77%, and PubMed's automatic term mapping at 51%. The interfaces in this study performed reasonably well with the tested data. However, the study process uncovered a number of difficulties when searching for eponyms.
Conclusions: Only eponyms that had associated MeSH terms were used in the study. Many eponyms were excluded because associated MeSH terms could not be determined. Eponyms present further complications in that some eponyms relate to more than one definition and some definitions have multiple eponyms. Further investigation is required.

115

Faculty, Resident, and Fellows Views of the Library
Deborah H. Ward, AHIP, Director; **MaryEllen C. Sievert,** Research Consultant and Professor Emerita; **Caryn M. Scoville,** Librarian, Information Services; **Dirk Burhans,** Research Specialist; J. Otto Library Health Sciences Library; **Barbara Boshard,** Quality Improvement, School of Medicine, Department of Internal Medicine; **Joy C. Drass,** Director, Residency, School of Medicine, Department of Child Health; University of Missouri–Columbia; **Melissa De Santis, AHIP,** Deputy Director, Health Sciences Library; **Lisa K. Traditi, AHIP,** Department Head and Assistant Professor, University of Colorado Health Sciences Library; University of Colorado–Denver Anschutz Medical Campus, Aurora, CO
Objective: Our objectives were to obtain data from two academic medical center libraries to reflect the perceived value of health sciences libraries and the use of the library, its resources, and its services. We gathered these data to allow comparison both between and among groups in each institution and across institutions. We looked at the responses from faculty, fellows, and residents to five questions. Specifically, we looked at two comparisons:
1. Do the responses among the three groups differ for any of the questions at either of the institutions?
2. Do the responses from all respondents in each group differ from the responses of either or both of the two groups?
Methods: We surveyed library users at the University of Missouri and the library at the University of Colorado. We used model-based methods to evaluate differences among three respondent groups: physicians, residents, and fellows. We also combined the data from each group to get an overall picture of the responses between the groups, regardless of which university. We calculated confidence intervals for each group's responses to these questions. Non-overlapping confidence intervals indicate that the groups do not differ statistically.
Results: Eighty-four faculty, 51 fellows, and 101 residents from the 2 universities responded to the survey. When asked about the reason for using the library, most in all categories responded "Patient Care" (39%-62% range). Respondents checked frequently (>60%) that they changed therapy or tests, changed management of patients, or confirmed a management decision because of the information from the library. Although residents tended to respond more frequently than others that they used library resources and services, this trend was not statistically significant. Finally, statistical tests indicated no differences in responses from the 2 institutions.
Conclusions: We found that respondents at both institutions made extensive use of the library resources and that the information gained from these resources influenced patient care in many ways. Respondents used the information in a variety of other ways, including as support for teaching, writing, and clinical research.

118

Marketing a Consumer Health Collection in a Pediatric Hospital
Carolyn Biglow, Student, Certificate of Advanced Study in Health Sciences Librarianship, and Medical and Consumer Health Librarian, Family Resource Center Library, University of Pittsburgh, Pittsburgh, PA
Objective: The purpose of this study is to determine the best, evidence-based methods used by medical librarians to market and promote pediatric hospital consumer health collections and services.
Methods: Setting: Pediatric hospitals containing consumer health collections and/or services. Population: Pediatric hospital librarians and staff. Description: This study explores, via a survey, the marketing and promotional activities performed by pediatric hospital librarians and staff that have increased the use of their consumer health collections and services. The survey was administered to pediatric medical librarians via a SurveyMonkey survey link to evaluate their marketing and promotional strategies. The survey included questions about outreach, hospital staff involvement in marketing efforts, and information delivery methods. In November 2010, the survey was sent to the email discussion list of the Pediatric Libraries Special Interest Group of MLA and to pediatric hospitals that were named in the Honor Roll of the 2010/11 *US News & World Report* Best Children's Hospitals. Once survey replies were received, the information was analyzed to determine the top five strategies that were identified.
Results and Conclusions: The survey resulted in 23 responses. The top five strategies identified were: (1) working closely with hospital nursing staff to promote the consumer health collection; (2) using open houses and monthly health observances as advertisements for consumer health services; (3) having patients pick up materials from the library; (4) involving child life, volunteers, and social workers in promotions for the collection; and 5) highlighting the online consumer health resources that the library maintains.

121

Embedded Librarianship: A Case Study of Best Practices
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Background: As an evolving part of the profession of librarianship, the embedded librarian model is still in the process of establishing guiding principles and best practices. There is no one correct route, and there are few established cases from which to learn about development issues and risks. This case study will demonstrate how one research institution implemented an embedded librarianship program.
Method: In this case study, the author presents an example of an embedded librarianship program at a medium-sized research institution and its effectiveness. A survey was designed that rated the embedded librarians' experiences in an embedded program, their expectations from the program and their level of satisfaction, the challenges they faced, how long they had been at the institution, how they feel the embedded librarian model is different from a traditional setting, and the rewards or penalties they have identified between the embedded and traditional models.

Results: Respondents agreed unanimously that work is more satisfying and interesting and that the move to become embedded has benefited the division and facilitated a higher level of analytical work. However, 41.7% (5 of 12) of respondents report feeling as if they receive inferior treatment from the clients they provide research assistance to, perceive a disconnect from librarians who work in different departments, and as a result of the previous issue, perceive a lack of casual, spontaneous training. The same percentage reported issues with the management hierarchy.
Conclusions: The move to embed research professionals has been successful on many levels, perhaps most importantly giving clients a more sophisticated level of research assistance and facilitating a higher level of analytical work. However, in a program that has been in effect for six years, major issues such as sufficient training and administrative issues continue to occur.

124

Rethinking the Way We Teach: A Look at Online Classes
Amy E. Blevins, Clinical Education Librarian, Hardin Library for the Health Sciences, University of Iowa–Iowa City; **Megan E. Besaw,** Liaison, College of Allied Health; **Roger Russell, AHIP,** Associate Professor/Assistant Director, User Services; Laupus Library, East Carolina University, Greenville, NC
Objective: The purpose of this research project is to find out if creating online classes for existing standing classes is useful for patrons. This will be done by figuring out who is using the classes, what their perceived needs are, and what they feel could be done to improve their experiences.
Methods: An online survey will be used to capture data for this research study. To maximize responses, the survey will go out in two ways. It will be placed directly on the online class pages to determine who is looking at the pages and why. The link will also be sent out via monthly emails to faculty to increase the number of respondents while publicizing the online classes. In addition, statistics will be gathered on the number of visits and unique visits to the online class landing page as well as the individual classes.
Results: The online survey went up on December 9, and responses were elicited in mid-January. As of February 14, 2011, only seven responses were received. Five of those were from a self-identified faculty member, one from an anonymous faculty member, and one a simple response to an email asking for feedback. While the feedback was positive, not much was learned. The statistics gathered from Google Analytics showed that the most popular class averaged forty-two unique visits per month, while the least popular class gathered around four unique visits per month. The online class landing page had an average of seventy-one unique hits per month since its creation.
Conclusions: Although it is unclear who is accessing the online classes, the statistics show that they are getting used. The benefits of online classes as alternatives or supplements to face-to-face classes make them worth creating in the future.

127

Rethinking Copyright: Success of a Specialized Service
Amber Repp, Reference Image Assistant; **Rienne Johnson,** Reference Librarian; **Beth Layton, AHIP,** Director; Library, Northeastern Ohio Universities Colleges of Medicine and Pharmacy–Rootstown
Objective: Copyright is a complex issue that educational faculty have to tackle on a regular basis. Faculty turned to the library to help with the university mandate regarding copyright concerns, especially using permissible images in course materials. Librarian skills and knowledge were a part of the solution, which has a direct impact on instruction.
Methods: The library approached this need systematically. The solution includes creating a specialized reference service, determining and documenting best processes, and educating faculty and administrative staff through presentations and the library website. The specialized reference service is a shared responsibility of a reference librarian and a half-time library school student. Many of the questions were about the use of images in digital presentations. The library began auditing the images and developing a database of resources to find permissible images. The knowledge gained through providing this service was essential in developing best practices and best processes. This knowledge was shared through a website and multiple presentations to faculty and educational staff. As faculty become aware of these services, the questions are expanding beyond images. The suite of services is now viewed by faculty as essential to instruction and research.
Results: Data collection and analysis of the survey is pending and will be taken into consideration in regard to maintaining or modifying the copyright services. However, discussions with faculty and staff show that the services are valued on campus and are a way for librarians to assist with as well as meet the curricular needs of faculty and staff.
Conclusion: Copyright previously was an area of confusion and concern on campus. The copyright services helped to address these issues, and the service has expanded to include non-image-based concerns. The service will continue to address the copyright on campus.

130

iPad Usage in Medical Libraries: A Survey
Suzanne Shurtz, AHIP, Instructional Services Librarian; **Rebecca McKay, AHIP,** Bryan Campus Librarian; **Thomas D. Halling,** Onsite Services Librarian; Medical Sciences Library, Texas A&M University–College Station
Objective: To evaluate the user-perceived benefits of having iPads available for check-out in an academic medical sciences library.
Methods: Two iPads were purchased and loaded with a diverse selection of academic and leisure-oriented applications. Input was solicited from library users at two locations: in the lobby of either the library or a building where nursing students and second-year medical students attended class. Patrons were asked if they would like to experiment with an iPad and complete a print survey regarding its anticipated usefulness in an academic setting. The five survey questions were designed to capture the general patron profile, the preferred length of iPad check-out, how the iPad would be used and in association with which applications, and any additional comments that were volunteered. These data were then entered into SurveyMonkey by the librarians.
Results: There were 100 total respondents. A great majority of the feedback was from students in the medical, nursing, and veterinary programs. The preferred iPad usage time span was split evenly between 4 hours and 2 weeks. The highest suggested uses of iPads included doing educational or research activities, searching the Internet, and reading e-books. When asked for specific types of resources users would utilize, e-books and health or medical apps were listed most frequently.
Conclusions: Patrons were interested in using iPads to assist them in an academic medical setting. There are many health- and medicine-related resources and applications available for iPads. Academic medical libraries can provide access to new applications and resources to support education and research by circulating iPads. As demand for mobile access and tools continues to increase, our research indicates that this offers an opportunity for an easily implemented, yet high-impact, library service.

133

The Rewards of Reviewing International Organization for Standardization (ISO)/National Information Standards Organization (NISO) Standards: Adding Value to the Publication Process, Gaining Professional Knowledge and Skills

Nadine P. Ellero, AHIP, Intellectual Access Librarian, Technical Services, The Claude Moore Health Sciences Library, University of Virginia Health System–Charlottesville; **Dean E. Cody,** Acquisitions Librarian, Technical Services, Southern Illinois University–Edwardsville

Objective: This study explores the impact and value of reviewing International Organization for Standardization (ISO)/National Information Standards Organization (NISO) standards for medical librarians and the library profession.

Methods: We surveyed past and present members of MLA's Technical Services Section Standards Committee (MLA/TSSC) and past MLA NISO representatives about their reviewing activities and experiences. Value was calculated by matching knowledge and experiences gained by the reviewer with corresponding library services and standards topics. We developed a Microsoft Access database to inventory the past seven years of standards reviewed, identified topical categories, and attributed metadata to each standard to determine the general impact of this work on the library profession.

Results: The survey revealed a strong sense of commitment and professional growth. A total of 164 standards were reviewed from 2005–2011, averaging 23 each year. The most frequently occurring topics were: metadata, codes, identifier schemes, records management, data transmission, audiovisual objects, data models, library statistics, and data conversion.

Conclusions: The review of proposed, draft, and up-for-review standards aids in the development ISO/NISO officially sanctioned standards. The process of reviewing is a valuable experience that has been lightly embraced by many librarians and, like book reviewing, is often under-recognized. The past six years has revealed a continuing heavy work load for meticulous and high profile work as it underlies many library functions and services, such as, library catalogs, digital repositories, discovery interfaces, full-text linking, and reporting performance. Additionally, it has the potential to develop rich skills for critical thinking, editorial reading, and technical writing.

136

Beyond Page Views: Rigorous Web Analytics in the Library

Wayne Loftus, AHIP, Web Services Coordinator, Health Sciences Libraries, University of Minnesota–Minneapolis

Objective: To develop an analytic framework for appropriately quantifying the success of the library's website and its various parts.

Methods: The health sciences libraries first began to seriously track our web statistics in November of 2005 when we installed the Google Analytics tracking script. Over the last five years, our approach to measuring the health of the website has changed dramatically, moving from simple traffic metrics to a much more engagement-focused practice, including advanced segmentation and custom author-level reports based on custom variables. This poster will describe that process and outline our current analytics strategy.

139

Providing Enhanced Access to Electronic Journals with Really Simple Syndication (RSS) Feeds and Impact Factors

Andrea S. Horne, Associate Director, Information Services; **Nadine P. Ellero, AHIP,** Intellectual Access Librarian; **David Moody,** Webmaster; **Bart Ragon,** Associate Director, Library Technology and Development; **Inhye Kim Son, AHIP,** Electronic Services and Research Librarian; Claude Moore Health Sciences Library, University of Virginia Health System–Charlottesville

Objective: To enhance an academic medical library's electronic journals web page by adding links to valuable tools and information such as table of contents subscription links and ISI impact factors.

Methods: Librarians and web developers formed a project team to identify the desired enhancements for the Claude Moore Health Sciences Library's electronic journals web page. Enhancements included links to: (1) subscription to journal table of contents email alerts, (2) subscription to the really simple syndication (RSS) feed for journal table of contents, and (3) access to the impact factor for individual journal titles (when available). A streamlined, highly usable interface was envisioned. The new electronic journals web page was developed using Drupal, a specialized programming interface using Python and PHP, and a Thomson Reuters application program interface (API). Manual entry of all RSS feed links and ISSN data into the library's locally programmed e-resources database was required to provide the added electronic journals web page functionality.

Results: Journal titles now feature links to easily subscribe to table of contents email services by simply entering an email address. RSS feeds are also made available through a single click. Finally, access to impact factor data (made available through the library's Journal Citation Index subscription) was also provided through a single click. Challenges to delivering this information included staff time to add ISSNs and RSS links to the e-journals system and programming required to maintain the quick performance of the original e-journal pages.

Conclusions: The e-journals pages have been enhanced while maintaining page performance. Future enhancements include redirecting the impact factor link, which currently points to "Impact Factor Trend Graph" page to the "Rank in Category" page so patrons can easily retrieve both impact factor and journal rank information.

142

Rethinking the Analysis of Faculty Publications

Virginia M. Carden, AHIP, Administrative Research Librarian; **Emma Cryer,** Electronic Resources and Serials Manager, Journal Services; **Patricia L. Thibodeau, AHIP, FMLA,** Associate Dean; Medical Center Library and Archives, Duke University, Durham, NC

Objective: Increasingly institutions are trying to analyze faculty productivity and track where they are publishing. Analysis by departmental output, journal titles, open access journals, and comparisons with peer institutions are now feasible using established search strategies and citation management software. The poster will feature how one health sciences library has been analyzing and presenting data for its institution.

Methods: The availability of author address information in the Web of Science database supported the development of complex search strategies to identify university publications. Once the citations were pulled into EndNote, it was easy to identify and mark the institutional authors, departments, divisions, and centers and to sort the citations for further analysis. Similar data were pulled for peer institutions. Based on data needed by administrators, the citations were analyzed for six prestige journals, top journals in each discipline, and overall productivity of a department. The benchmarking data for peers was used as a comparison. The data were also used to identify open access journals. More recently, the data were being requested for broader institutional uses by individual departments and campus planning for a repository of faculty publications.

Results: With the creation of a database of more than 3,500 citations, institutional publications can be analyzed to provide not only productivity measures of individual units and authors, but also to identify trends in terms of where authors are publishing (open access or traditional journals) and the major publications in which manuscripts appear. This information can also be useful in marketing the faculty expertise and the prestige of the institution as well as preparing documents for appointment and promotion. Through additional education, the library can help departments further customize the publication database for unique applications.
Conclusions: By using the advanced searching, training, and organizational skills of librarians, the library can provide a service that supports administrative decisions, faculty activities, and marketing functions of the university.

145

Going Mobile: Librarians Supporting Distance Learning Students with Mobile Resources

Billie Anne Gebb, Director, Library Services; **Zach Young,** Information Services Librarian; Alice Whitman Memorial Library, Frontier School of Midwifery and Family Nursing, Lexington, KY

Objective: To demonstrate how medical librarians can support an institution's overarching goal to graduate technologically competent practitioners to provide quality health care by increasing availability of electronic resources to better match those available to clinicians and providing training and support for those resources.
Methods: The small library staff of a distance-based graduate nursing school selected resources and provided training and support for those resources as part of a grant-funded emerging media project. The institution received funding to initiate a proposal to incorporate new technologies for enhancing delivery of distance education. One objective of the grant was to increase the electronic resources available to students to better match what will be available to them as clinicians. Because the grant also provided for a mobile initiative, the resources selected were all available on mobile platforms. The library staff was integrally involved in choosing the resources, providing support and training, and by extension, providing support and training on mobile devices. Various student surveys reveal that students feel comfortable and confident using these resources and consider them essential for practice.
Results: Over the 4 academic terms of 2010, the number of clinical students (n=228) who reported using their mobile devices to access information to assist them in clinical very often increased from a low of 27% to a high of 55%. The overall percentage of clinical students who used their devices for clinical information often or very often was 67%. An overwhelming majority (>85%) of students agreed that the librarian-led session assisted them in learning to use clinical resources on their mobile devices.
Conclusions: Point-of-care resources are an important tool for clinical students, but more promotion and training may be necessary for widespread adoption. Librarians can support this initiative by selecting appropriate applications and providing training for their use.

148

Moving from Old to New: Analog to Digital Conversion of the Pacific Symposium Collection

Naomi C. Broering, AHIP, FMLA, Dean, Libraries; **Gregory A. Chauncey,** Consumer Health Program Manager; **Samantha Stevens,** Library Assistant, Library; **Jack Miller,** President, Administration; Pacific College of Oriental Medicine, San Diego, CA

Objectives: The Pacific College of Oriental Medicine received an MLA Research, Development, and Demonstration Project Grant in 2009 to launch a pilot study on the usefulness and feasibility of converting a unique fifteen-year (1989–2004) Pacific Symposium audiotape collection to digital CD format. The objectives were to digitize the collection in a phased approach by implementing technical procedures, testing, modifying, and producing a uniform collection. The raison d'être was to eliminate mixed formats, standardize the collection to CD format, and preserve the college's Pacific Symposium archival collection. Additional project objectives were to improve media cataloging procedures with detailed analytics and develop a comprehensive title/author list for access on the library website.
Methods: The methodology for digitizing all audiotapes in the collection, included gathering the recordings for each year; determining tape condition for digitization; establishing use of MP3 procedures; capturing, monitoring, and listing sound tracks for each speaker; maintaining recording date and time; and finalizing the year of each CD. The research component included data gathering, analysis, and evaluation to determine outcomes of conversion. Added value included identifying the analytics cataloging process for all titles and authors to facilitate retrieval and creating the author/title catalog list to accompany each CD.
Results: The project resulted in a highly successful library team effort. Staff included the librarian, a library school intern, two library assistants, and students. The manual procedures of loading tapes, monitoring, recording the data files, and cataloging the CDs were a yearlong, labor-intensive endeavor, but we gained invaluable experience. Also, we saved library shelf space; an entire shelf range of audiotapes was reduced to thirty-four CDs, and copies were made for the branch libraries. Lessons learned involved transfer from raw files to Audacity and WAVE to MP3.
Conclusions: The project elevated the library technologically into the digital world. Library user comments include compliments on changing to a new format with open access to the collection. User requests are to convert the video collection to DVD format. This is a larger project, which will require funding for staff, special equipment, and software. This poster shows electronic images of project results.

151

Reenvisioning a Health Future: Focusing on a Regional Health Institute

Ann Duesing, Outreach Librarian, Health Sciences Library, University of Virginia–Wise

Objective: This poster documents program support for a regional health institute whose mission is to improve the health, education, environment, and prosperity for residents by collaborating across communities and organizations, generating and implementing new ideas, and engaging the social, economic, and scientific issues that exist at the interface of health and the culture.
Methods: The outreach librarian accepted an invitation by the institute to become a founding faculty member. Through involvement in planning and implementation of early projects, the librarian provided informational assistance for institute student-fellows and research for the institute's community coordinator as well as local college faculty institute members. Other support includes assistance with archiving institute materials, contributions to website resources, and community informational support for participants in student programs. As a leadership council for new projects develops, information support will be provided. A community-based research focus is under discussion and will be given informational support. Documentation of previous community research is underway

by the outreach librarian to determine the extent of regionally focused community research.

154

Reaching the Mobile Student Generation: Virtual Reference via Elluminate Live!

Marie K. Saimbert, Information and Education Librarian, George F. Smith Library of the Health Sciences; **Rosario Estrada,** Assistant Professor and Master of Science in Nursing Informatics Track Coordinator, Graduate Nursing; **Thomas DiStefano,** Coordinator, Multimedia Design Technology Support Services, School of Nursing; **Patrick Mattis,** Director, Nursing Technology Integration, and Instructor, Graduate Nursing; **Roberta Bronson Fitzpatrick,** Associate Director, George F. Smith Library of the Health Sciences; **Gail Reiken Tuzman,** Manager, Instructional Technologies, Information Systems and Technologies; University of Medicine and Dentistry of New Jersey–Newark

Objective: A subscription-based virtual e-learning collaboration tool was considered for facilitating "just-in-time" virtual library research literacy sessions for accelerated nursing students in an online informatics course.

Methods: For the past three years, a liaison librarian has collaborated with a nursing informatics professor each semester to provide virtual library sessions on searching and managing bibliographic citations. The session is provided in a webinar format, rather than delivered via face-to-face, traditional instructional session. Free Internet-based webinar tools were used previously, but this year, the library was granted access for using "seats" from the school of nursing's license to Elluminate Live! in order to deliver course content.

Results: Students expressed enthusiasm over the webinar format for a library workshop. Recommendations were shared for follow up virtual sessions, periodic library resources refresher, and a library question-and-answer service via Elluminate. Several school of nursing faculty approached the librarian with requests for future virtual sessions on various research tools for students, commenting that virtual sessions could be in place of, or as adjunct to, face-to-face library sessions.

Conclusions: Virtual library workshop sessions have the potential to occur at a convenient time for both students and faculty, allow interaction with a librarian, and provide instruction for "on-demand" library content useful for specific assignments. Virtual sessions have prompted rethinking of the current structure of in-person library class offerings, with a potential to decrease face-to-face session offerings in favor of more virtual sessions. This flexibility in planning and scheduling will be based on successes and lessons learned from the Elluminate sessions.

157

Collaborating with Public Librarians to Promote Emergency Preparedness and Safety Awareness

Gediminas (Geddy) Paulaitis, AHIP, Director, Access Services and Biomedical Communications; **Emily J. Vardell,** Director, Reference, Education, and Community Engagement; Louis Calder Memorial Library, Miller School of Medicine, University of Miami, Miami, FL; **Jennifer Shipley,** Manager; Business and Science Department, Miami Dade Public Library System, Miami, FL

Objective: To promote awareness of emergency preparedness and family safety resources from the National Library of Medicine (NLM) and the local community among public librarians and their patrons by partnering with the public library system to host fairs and training.

Methods: The Louis Calder Memorial Library received an Express Community Day Award from the National Network of Libraries of Medicine (NN/LM) to partner with the Miami Dade County Public Library librarians to promote emergency preparedness and safety awareness. Named "Safety Fair: Keep Your Family Safe: Emergency Preparedness at Home and Away," the events improved the public librarians' knowledge of NLM resources, such as TOXNET, MedlinePlus, ToxTown, ToxMystery, and WISER, as well as university-created resources, such as the *Family Disaster Plan Guidebook* in English and Spanish and a coloring book for the many children attending the summer fairs. A train-the-trainer program was also implemented for the public librarians. Class participants were asked to fill out a brief questionnaire after the training sessions.

Results: Over 1,000 participants, mostly from underserved populations, attended the three safety fairs. In addition to a quick demonstration of NLM resources, more than 400 *Family Disaster Plan Guides* and hurricane preparedness coloring books were distributed to the attendees. Calder librarians also held 3 train-the-trainer sessions for the public librarians and branch managers. Forty-four train-the-trainer questionnaires were collected. Although a few trainees noted that it may have been beneficial to have longer training sessions, all 44 responders rated the training sessions as "Helpful" or "Very Helpful." Most (72%–85%) claimed to already know of MedlinePlus and TOXNET. Trainers reported that they were more likely to obtain home safety information that came from print resources than from other experts.

Conclusion: The fairs were well attended, allowing librarians to deliver useful home safety information to a large underserved audience. Based on this experience, partnerships with public librarians have developed and new opportunities have emerged.

160

The Impact of Library Instruction: Do First-year Medical Students Use Library Resources Specifically Highlighted During Instructional Sessions?

Ryan Rafferty, Assistant Health Sciences Librarian, Library of the Health Sciences, University of Illinois–Chicago, Urbana, IL

Objective: The purpose of this study is to determine if first-year medical students enrolled in the "Introduction to Human Disease" course for the University of Illinois College of Medicine–Urbana used resources specifically highlighted during library instructional sessions for their assigned coursework. Citation analysis will be used to assess the impact of the library's instructional sessions and web pages designed for the students' course.

Methods: Library instructional sessions were conducted during which the author demonstrated and discussed resources specific to the students' assignment. Copies of the completed assignments (with cited resources) were given to the author for analysis. The cited resources were coded as follows: a resource discussed at the library instructional session, a resource found on the library web page for the course, a library resource, a course material (such as lecture notes), a resource from any other place, and a quality resource, and if the resource could be found as cited. All but the "quality" and "found as cited" categories were further broken down into electronic and print resources.

Results: Analysis of the data from 2008–2009 shows 43.92% of all resources cited were discussed during library instructional sessions, which includes 19.40% that could be found on the library web pages for the course. Overall, 75.29% of the citations were from library resources and 90.06% came from electronic resources. Analysis of the data from 2009–2010 shows 54.51% of all resources cited were discussed during library instructional sessions, which includes 20.77% that could be found on the

library web pages for the course. Overall, 75.08% of the citations were from library resources and 92.5% came from electronic resources.
Conclusions: Analysis shows students cited resources specifically highlighted during library instructional sessions for their assigned course work. Further investigation is necessary to determine if students found the cited resources because of the library instructional sessions and/or web pages.

163
Rethinking Existing Processes to Improve Staff Involvement in Web Development
Michelle Frisque, Head, Information Systems; **Jim Brucker,** Instructional Design Librarian; **Linda O'Dwyer,** Communications Coordinator and Education Librarian; **Steve Hunt,** Web Programmer; **Jeremy Prevost,** Web Applications/ Software Developer; Galter Health Sciences Library, Northwestern University, Chicago, IL
Objective: Implement a solution that:
• streamlines the development and maintenance of the library's web-based applications
• speeds up the time between development of a new application and gathering of user feedback
• improves transparency of the web development process in the library
• increases library staff participation in documenting requirements as well as developing and testing web-based applications
Methods: The Scrum method was selected. Scrum is an iterative, incremental framework for agile software development, and it has been adapted by organizations to assist in other project management activities. The Scrum framework was created to be adaptable to the needs of the organization. Using this framework as a starting point, the library's information systems department, in conjunction with the library's web committee, set out to adapt the Scrum framework to achieve the library's objectives. Using Scrum, work is done in short bursts, known as sprints, which last from two to four weeks, allowing the web committee to have features ready for use within weeks instead of months. Members of the web committee help identify which projects are chosen for each sprint and help test the projects before they are released into the production environment.
Results/Conclusions: The library has used the Scrum framework process for over a year, and overall, we are very pleased with it. The framework has been easy to adapt to fit the needs of the library staff and the library workflow. Benefits of implementing the Scrum framework include:
• Stakeholders have a say in which web projects are undertaken in each sprint.
• More staff are involved in the web-development process.
• Transparency is improved because more information is shared with library staff regularly.
• Web projects are available to the user faster, which allows us to gather user feedback sooner.
• Projects are more defined before they are undertaken.
• It was easy to learn.

166
Go FIGure: Health Literacy and Freshmen Interest Groups
Katherine M. Anderson, Specialized Services Librarian, J. Otto Lottes Health Sciences Library; **Terry N. Wilson,** Director, Health Promotion and Wellness, Student Health Center; University of Missouri–Columbia
Objective: As first-year students transition to college life, they are faced with rethinking their role in their own health. Finding accurate health information, navigating a complex health care system, and improving communication with health care providers are all part of being a wise health care consumer. On a large university campus, connecting with freshman interest groups (FIGs) provides a useful small-group setting to discuss health literacy.
Methods: A fifty-minute session was developed and co-taught by a health sciences librarian and the director for health promotion at the student health center. Topics included evaluating health information on the web, utilizing MedlinePlus, deciphering prescription labels, and accessing services at the student health center. During the session, students entered the student health center number into their cell phones.
Results: In the pilot semester, 14 FIGs requested the specialized session, and more than 250 first-year students attended health literacy discussions. The instructors received positive informal feedback about the session.
Conclusions: While the session itself was broad in scope, it provided students with a starting point for thinking about their rights and responsibilities in terms of their own health. Also, the health literacy sessions allowed the health sciences library to reach a group not normally served by the library and to create collaborative ties to the student health center.

169
Recharge, Replenish, Rejuvenate: Celebrating Inspirational Writing in Medicine
Lisa Oberg, Head, Outreach Services, Health Sciences Library, University of Washington–Seattle
Objective:
• To develop community and nurture creativity by providing opportunities for faculty, staff, and students to set aside their denser, professional reading for relevant but lighter works, which foster opportunities for discussion and reflection.
• To promote the library as a place of ideas, conversation, and inspiration, especially in response to catastrophic worlds events with far-reaching public health ramifications.
Methods: Staff at a health sciences library at a large academic medical center with six professional schools, a medical center, and allied programs were involved in several endeavors designed to promote reading for both pleasure and inspiration including participating in a campus-wide common book project, purchasing popular reading materials, and showcasing poetry and other creative writing that appears in professional journal literature for patrons. Book group discussions and occasional films have also been held around particular themes tied in with exhibits and other events. Having a creative outlet for librarians to be involved with has also been very rewarding. Drawing on world events such as the Banda Aceh tsunami, Haitian earthquakes, Hurricane Katrina, World AIDS crisis, terrorism threats, etc., the library is able to respond with writing that inspires and offers up hope and solutions in challenging times.
Results: Response to having a variety of experiences for faculty, staff, and students to "take 5" and contemplate while in the library has proved to be a great way to help build a brand for the library as a nurturing space that both challenges and informs. This kind of experience in particular resonates with students who are used to more group learning and interdisciplinary problem solving.
Conclusions: The library can be a vital place for reflection, even in an academic health sciences library primarily associated with scholarly literature. In addition, focusing on popular health sciences–related literature provides librarians the opportunity to draw on their own vast reading experiences and showcase the institution's vast collections and allows library users to step outside of their everyday research interests and gain exposure to new ideas and sources of inspiration.

172

Patient Care and the Hospital Library: A Regional Study

MaryEllen C. Sievert, Research Consultant and Professor Emerita; **Deborah H. Ward, AHIP,** Director; **Dirk Burhans,** Research Specialist; **Barbara Jones,** Outreach and Advocacy, National Network of Libraries of Medicine, MidContinental Region; J. Otto Lottes Health Sciences Library, University of Missouri–Columbia; **Margaret M. Bandy, AHIP, FMLA,** Manager, Library and Media Services, Medical Library, Exempla St. Joseph Hospital, Denver, CO; **Jerry Carlson, AHIP,** Medical Librarian, Medical Library, Poudre Valley Hospital, Fort Collins, CO; **Rosalind F. Dudden, AHIP, FMLA,** Director, Library and Knowledge Services, Gerald Tucker Memorial Medical Library, National Jewish Health, Denver, CO; **Wilma Bunch,** Director, Hospital Library, Cox Memorial Hospital, Springfield, MO; **Emily Eresuma,** Librarian, Medical Library, Primary Children's Medical Center; **Erica Lake,** Senior Medical Librarian, Health Information Center, LDS Hospital, Intermountain Healthcare, Salt Lake City, UT

Objective: Our objectives were to obtain data from hospitals in the MidContinental Region of National Network of Libraries of Medicine to determine the perceived value of health sciences libraries, the use of the library, its resources, and its services and to provide insights about barriers for the use of these library resources at their institution.

Methods: We surveyed hospital library users from hospitals in Missouri, Colorado, and Utah with a set of common questions. We used model-based methods, which included an effect for possible differences among hospitals, to evaluate differences among the respondent groups—physicians, nurses, and other staff. We investigated the data both from the perspective of the individual hospital library and all the hospital libraries.

Results: Over 800 health care professionals responded to the survey. The majority of them, across all institutions, responded that they used the library's resources for patient care. In some cases, responses from nurses differed significantly from that of physicians. Physicians reported that they used information from library resources for choice of therapy and tests, management of patients, and confirmation of patient management decisions. Nurses were less likely to respond that they used such information for the choice of tests, for example.

Conclusions: Respondents at all institutions checked that they used library resources and services for patient care; in many cases, patient care was the most frequent reason to use such resources. Our data indicate that the hospital is important to the patient care at these hospitals.

175

Rethinking the Value of Older Journals

Renae Barger, Assistant Director, Access Services, Health Sciences Library System, University of Pittsburgh, Pittsburgh, PA

Objective: According to a 2010 MLA DOCLINE update, DOCLINE lending is continuing a decreasing trend. Since the national DOCLINE peak in 2002, there has been a 39% decrease in interlibrary loan traffic in DOCLINE. Although one large academic health sciences library system has also experienced a rapid decline in overall lending activity, it has noticed interlibrary lending from pre-1990 journal articles, located in its offsite storage facility, has increased. This study sought to examine interlibrary loan requests filled from pre-1990 journal titles. Could it be that researchers are not finding a substitute for older literature? Should libraries rethink the value of older journals?

Methods: Interlibrary loan requests received by a large academic health sciences library system for pre-1990 journal articles were examined to determine trends and/or popularity of specific titles. Requests received between July 2007 and June 2010 were examined. All requests for pre-1990 titles were included: DOCLINE, OCLC, and other interlibrary loan sources. In addition, requests filled through online subscriptions, as well as print storage, were included.

181

Family Medical History

Rosalind K. Lett, AHIP, Associate Director, Public Services, Huntsville Madison County Public Library, Huntsville, AL

Objective: Our objective is to introduce genetic genealogy, the application of genetics to traditional genealogy, focusing on health benefits. Genetic genealogy involves the use of DNA testing to help people find their ancestors, as well as predict their risk for a variety of medical conditions.

Methods: We aim to encourage the creation of family medical histories to help document family patterns that may impact health, such as trends toward specific types of cancer, early heart disease, or even something simple such as skin problems. Compiling a family medical history helps families and their doctors spot family patterns and use the information to assist with diagnosing a medical condition, determine the benefits of preventive measures in lowering specific disease risk, and identifying other at-risk family members. We strive to rekindle community interest in genealogy and encourage families to use the library for cultural, educational, and historic preservation of their family medical history. Our goal is to develop a how-to training DVD series recording live classes that provide step-by-step instructions on how to create a family medical history and develop a companion workbook to help people start conducting research, preparing their medical family tree, and recording their family medical history.

Results and Conclusions: A workbook was developed that includes a family medical history questionnaire, instructions on how to develop a family medical history and why it is important to know your family medical history. Classes have been developed to provide step-by-step instructions on how to create a family medical history, how DNA contributes to your family medical history, how to chart your family medical history, and how to use the results of your family medical history research to improve your family's health.

184

iPads and Health Notebooks at the YMCA: A Service Learning Partnership between Second-year Medical Students and Seniors

Peggy Gross, AHIP, Assistant Director and Supervisor, Learning Resource Center; **Virginia Syperda,** Professor, Primary Care, and Director, Clinical Examination; **Steve Sharkady,** Basic Science and Problem Based Learning Faculty, Department of Medicine; **Florence Lee,** Medical Student; **Maryann Salib,** Medical Student; **Rachel Johnson,** Medical Student; **Amit Sharma,** Medical Student; **Ben Bumgarner,** Medical Student; Lake Erie College of Osteopathic Medicine, Greensburg, PA

Objective: This outreach program provides older adults in southwestern Pennsylvania with both health notebooks and online searching workshops in order to maintain and manage their health.

Aims:

1. Creates a model of community-based training experience by instilling in future physicians an ethic of service that recognizes the community as a valuable teaching resource.

2. Provides older adults with health notebooks to organize personal health information and to manage their medical conditions
3. Increases both medical students' and older adults' abilities to access, search, and evaluate quality consumer health information resources using the National Library of Medicine's online database, MedlinePlus.
4. Empowers older adults to communicate effectively with their health care providers.

Poster Session 3
Tuesday, May 17, 2:00 p.m.–3:00 p.m.

Minneapolis Convention Center, Exhibit Hall A

3

Worksite Health Information Dissemination

Ejeagwu O. Nwafor-Orizu, Medical Librarian, Medical Library, Pharmaceutical Sciences, Unizik, Awka, Nigeria

Objective: To extend quality health information to factory workers for cardiovascular diseases prevention and assess the impact.

Methods: Six months after sessions of training and interaction with the workers of CHICASON group, survey questionnaire copies were administered in addition to structured interview to harvest feedback.

Results: All the workers who attended the program reported at least one form of behavioral change and continuous conscious attempt to prevent cardiovascular diseases (CVD). Forty-three percent reported they no longer drank water while eating; 70% eat more vegetables and fruits; 78% drink more water daily, while 38% have dropped late dinners. Almost all (92%) try eating breakfast, while 2 have dropped smoking. Many (81%) reported they try one form of physical activity or another a day. None has registered with a gym, but some management staff had acquired some sports equipment for the family and office use also.

Conclusions: Compiling quality health information from library resources and disseminating same to factory workers is an invaluable contribution medical librarians can make to save lives especially in developing countries. Factory workers lack basic health information; librarians can fill this vacuum (in collaboration with other health professionals).

14

Library Education Programs: Restructuring to Reach More Students, One Library's Perspective

Victoria H. Goode, Clinical Informationist, Welch Medical Library, Johns Hopkins University, Baltimore, MD

Objective: Education programs are a very important part of a library's overall services, but what is the most effective structure for these programs? This poster will discuss one library's transition to offering more classes that are shorter length on topics geared toward the novice and will evaluate the impact this transition has had on the library's education program overall.

Methods: The educational offerings of medical libraries across the country were investigated through their websites to garner insight into the length, frequency, and topics of classes to inform the beginning phase of the restructuring. After this phase, librarian knowledge of their own user groups was drawn upon to determine class topics, and attendance data were used to help establish the popularity of each class and inform the program director how often each class should be offered. Additionally, using patron requests and attendance data, class topics were evaluated for value. This resulted in a shift from both novice- and advanced-level classes being offered to almost exclusively novice level. The measures used to evaluate the impact of these changes may include attendance data, student demand for future classes, and librarian interviews for their perspective.

Results: During the first year of classes that occurred after the changes were made, the library was able to offer 63% more classes than the prior year and had an increase of 75% in class attendance. In-demand classes, as determined by class attendance and wait list length, had increased offerings, and almost all advanced level classes were eliminated. The content covered in each class was reviewed and changes made so that content could be taught in the shortened amount of time. Finally, additional classes were added to the curriculum. The new classes were added to the curriculum based on librarian knowledge of the educational needs of their patron groups.

Conclusions: Overall, the changes made to the library's education program have provided increased educational opportunities for library patrons. By adjusting the length of time of each class offered, the library has been given greater flexibility in the number and types of classes offered.

15

Rethinking Web Training: Using a Learning Management System for Search Skills Training

Teresa R. Coady, Medical Library Director, VA Central Iowa Healthcare System–Des Moines; **Priscilla L. Stephenson,** Chief, Library Service, Philadelphia VA Medical Center, Philadelphia, PA; **Nancy Clark,** Director, Library Network Office, VA Central Office, Washington, DC; **Anna Alt-White,** Director; **Beverly Priefer,** Associate Director, Research and Academic Programs, Office of Nursing Services; Department of Veterans Affairs, Washington, DC; **Ron Farson,** eLearning Producer, St. Louis Employee Education Resource Center, St. Louis, MO; **Ramona Wallace,** Education Project Manager, Employee Education System, St. Louis, MO

Objective: The goal of this training project has been to develop a course to train nursing personnel in the techniques of literature searching to support evidence-based nursing practice. The web-based tutorial developed by a collaborative team of librarians and nursing educators will be accessible to nursing employees from their desktops via a nationwide learning management system.

Methods: Working collaboratively with two nurses from the office of nursing services, two librarians developed the course content, including the script, video screen captures, and PowerPoint slides. The online course, "Searching for the Best Evidence: A Collaborative Project," was created with the use of Camtasia Studio software to capture live search demos with voice-overs. A professional production crew produced storyboards, integrated animation, and added graphics to complete the interactive module. The learning module will be posted on the learning management system, where it will be available as a one-hour, computer-based training module for all nurses. Each nurse can take the online training at the point of need and receive one hour continuing education credit upon completion.

Results: The content has been finalized, and the learning module is in production. We anticipate using multiple methods to make known the module's availability. Further, we plan to evaluate its accessibility and value.

Conclusions: The learning module, "Searching for the Best Evidence: A Collaborative Project," will provide enhanced learning for evidence-based nursing practice at the point of need. This web-based tutorial will provide national training for Department of Veterans Affairs (VA) nurses across the 153 facilities and numerous other care delivery settings and introduce them to the knowledge-based information resources available to support their work. This project provided an opportunity for rethinking and reforging relationships between medical librarians and nursing personnel.

18

Accessing Materials Using Dynamic Links in the Library Information System

David Brennan, Assistant Librarian, Collection Development/ Digital Resources Management, George T. Harrell Health Sciences Library, Penn State Hershey, Milton S. Hershey Medical Center, Hershey, PA

Objective: To improve access to materials in medical subject areas within a university-wide library information system (LIS), with specific emphasis on evidence-based medicine (EBM) resources. In a university-wide LIS, searching and browsing for materials in medical subject areas can be difficult. Outside of a straight keyword search, users must typically choose a number of options to perform an effective search, such as limiting to a specific location and choosing Library of Congress (LC) or medical subject indexes (and knowing the difference between them!). A solution to this difficulty is to provide a set of dynamic or canned search links to materials in the broad National Library of Medicine (NLM) classes, QS through WZ.
Methods: Research varying methods of medical subject access in the LIS (i.e., Medical Subject Headings [MeSH], document lifecycle management [DLM] classification, and keywords). Research dynamic link syntax and construct link lists. Test results.
Results and Conclusions: A drop-down list that searches against the 060 (NLM call number) was implemented in November 2010. After working with this list, several conclusions can be reached. In a general sense, searching by broad classes (at least in a discrete collection such as reserves) is useful. However, in the case of EBM and evidence-based nursing, materials can be placed in several classes, depending on specialty, so that a subject word search was used rather than a class search. The most important factor in the success or failure of this access method is the quality of the underlying cataloging, be it NLM classification or subject headings. Scaling this method to the general collection would be problematic (particularly in terms of electronic resources that have cataloging batch-loaded). There may not even be NLM call numbers assigned to a great number of records.

21

The Development of Evidence Searching Anxiety Scale
Hui-Chin Chang, Director, Library, Chung Shan Medical University Hospital, Taichung, Taiwan; **Long-Yau Lin,** Professor, School of Medicine; **Chung-Hung Tsai,** Professor, Institute of Medicine, Chung Shan Medical University, Taichung, Taiwan; **En-Li Hao,** Executive Secretary; Center of Evidence-Based Medicine; Chung Shan Medical University Hospital, Taichung, Taiwan
Objectives: Evidence-based medicine (EBM) educational assessment instruments to date have not focused on the anxiety status of the learners and that is important for the development of EBM education curriculum and teaching practice. Therefore, we developed and validated a behavior questionnaire designed to evaluate EBM learning in learners' evidence-based practice.
Methods: Participants: Eighty-six graduate medical school students were recruited for the preliminary questionnaire study. One hundred and eight EBM-center workshop learners participated in the final format questionnaire study.
Result: The 47-item questionnaire was designed based on the prior studies and teaching experience, which has been surveyed for the first stage participants in 2004. The questionnaire was revise based on the item to all reliability evaluation (r>0.933). We had a 37-item final questionnaire and further validated it with principal axis factoring analysis, varimax rotation, and scree plot analysis.
Conclusion: There are 3 constructed domains in the questionnaire. Eighteen items grouped as searching technique domain with Cronbach α 0.955, 12 items grouped as evidence information proficiency domain with Cronbach α 0.823, and 7 items grouped as facility domain with Cronbach α 0.778. The variation explanation is 27.96%, 17.99%, and 11.99%. The cumulative variation explanation is 57.94%. Ambiguous items were deleted. We have a concise measurement tool made up of 34 items. The questionnaire was advisedly incorporated in the EBM teaching program and used as the EBM-teaching syllabus development.

24

Rethinking OpenOffice
Keydi Boss O'Hagan, AHIP, Medical Librarian, Medical Staff Library, Holy Name Medical Center, Teaneck, NJ
Objective: At the medical center, Microsoft Office is restricted to selected computers. OpenOffice, however, is available on all computers including the medical library computers. The librarian has observed use of the trial version of Microsoft Office on the library computers and set out to measure the level of satisfaction of OpenOffice for writing, spreadsheet, and presentation among hospital employees. The poster will present the results of the librarian's research.
Method: All employees will be invited to complete a web-based survey. Employee demographics and employee satisfaction of OpenOffice will be queried. The results of the survey will be presented to the medical center's information technology department. The librarian will also quantify the observed use of the trial version of Microscoft Office and present these findings to the medical center's information technology department.
Results: Two hundred forty-two employees responded to the survey; 3% of respondents preferred OpenOffice; 19% of employees have used OpenOffice. Of the 19%, less than half of them are very satisfied or satisfied with OpenOffice.
Conclusion: These results suggest that OpenOffice is not widely used by employees and is not user friendly.

28

Refining a Local Bibliographic Database Design with Usability Testing: The Mayo Authors User Interface Project
Melissa L. Rethlefsen, AHIP, Education Technology Librarian; **Dottie Hawthorne, AHIP,** Outreach Librarian; **Mark Wentz,** Library Associate; **Larry Prokop,** Reference Librarian; Mayo Clinic Libraries; **Thomas Suther,** Data Architecture and Usability, Information Services; **John Schultz,** Production Designer, Media Support Services; Mayo Clinic, Rochester, MN
Objective: To improve the interface of a newly redesigned local bibliographic database, Mayo Authors, through usability testing.
Methodology: The Mayo Authors database is a local bibliographic database tracking the publication histories of Mayo Clinic staff since 1871. Economic and technological considerations led the libraries to completely redesign the database and its user interface in 2010. The user interface initially combined a traditional, set-based advanced search with a Google-like basic search interface. To test its usability, the Mayo Authors team conducted a study with the assistance of the clinic's usability lab and design staff. A set of questions designed to test the basic and advanced capabilities of the system was developed, tested, and refined by team members. After questions were finalized, eleven staff from inside and outside the libraries were recruited for usability testing. Each participant spent an hour in the usability lab working through the questions using a think aloud protocol, followed by a brief interview and a short survey. The participants were videotaped and their screens recorded; each participant hour was followed by an hour of discussion to identify problematic areas in the database usability. Further posttesting discussion resulted in further refinement of the database's user interface.
Results: From observing 11 participants going through 14 scenarios each, a set of 233 findings—including comments, issues, bugs, and trouble spots—was created. Each of the findings was discussed and addressed. Improvements made included changing terminology, fixing identified bugs, and overhauling the

options for saving and viewing searches.
Conclusion: The usability study method allowed us to significantly improve the functionality and form of the Mayo Authors database.

32

Comparison of Selected Reference Management Tools

Yingting Zhang, AHIP, Information and Education Librarian; **Kerry O'Rourke, AHIP,** Campus Library Director; Robert Wood Johnson Library of the Health Sciences, University of Medicine and Dentistry of New Jersey–New Brunswick
Objective: There are several different kinds of reference management tools that help users in their research. In order for users to decide which tool is best for their needs, it is important to know each tool's strengths and weaknesses. This poster will compare four reference management tools, one of which is licensed by the library and three are freely available.
Methods: Because of the availability of a number of reference management tools for users, an effort was made to identify a few most popular and useful tools to compare. Based on the discussion on library email discussion lists, related articles, Internet resources, and users' recommendations, four tools were chosen for comparison considering their functionality, ease of use, availability to library users, and popularity. These four tools are: EndNote/EndNote Web, Zotero, Connotea, and Mendeley.
Results: A comparison table of the four reference management tools was prepared and has been displayed on the library website. The next step is to develop some user guides and interactive tutorials for each of the tools so that our users can take full advantage of these available tools to meet their research needs.
Conclusions: Although there are various types of reference management tools, each one has its own strengths and weakness. Making the best use of each tool's strengths will maximize the benefits to researchers.

35

Trends Over Time: Bibliometric Analysis of a Health Sciences Library Journal

Susan E. Werner, AHIP, Medical Librarian; **Colleen M. Kenefick, AHIP,** Librarian; Health Sciences Library, Stony Brook University, Stony Brook, NY
Objective: To examine by bibliometric analysis all peer-reviewed articles published in a leading health sciences library journal for article subject, author characteristics, collaborative efforts, institutional affiliation, and regional productivity, as well as material type, age, and subject of cited references.
Methods: Analysis of the 428 peer-reviewed articles in *Medical Reference Services Quarterly* from inception in 1982 through 2009 was conducted. Procedures were created to ensure a high degree of inter-rater reliability. Each article was assigned to 1 subject area. Publication rates by gender, Academy of Health Information Professionals membership, and productivity by institution was compiled. Author collaboration by decade was compared for both intra-institutional and inter-institutional publications by individuals and number of coauthors. Other characteristics examined were frequencies of publication by individual authors and number of authors per article. Productivity by institutional affiliation category and US geographic regions compared to percentage of medical schools was calculated. All 4,388 cited references were assigned to 1 of 6 publication types; average citation age was calculated; number of citations per journal title; and subject areas of cited journal titles were also determined.
Results: Minor differences were found between male and female publication rates compared to their professional percentage. Over the last decade, 25% of authors listed Academy of Health Information Professionals membership. Academic health sciences library authors consistently account for the majority of papers. Single authored papers are most common. Collaboration rates have increased within the same institution; however, the same pattern was not demonstrated for inter-institutional collaboration. Wide variations of authorship by region and institution were discovered. The Northeast had a disproportionately large number of authors compared to the number of medical schools. Medical science journals were cited more often than library and information science journals. A relatively small number of journal titles accounted for many of the 722 journal titles cited.
Conclusion: Analysis of peer-reviewed health sciences librarianship publications is valuable in monitoring the profession. Scholarly output in the field needs to be examined to detect patterns, trends, and issues.

36

Through the Library Lens: Using Video Casts to Market Library Services

Jeanne Strausman, AHIP, Chief Medical Librarian; **Gerri Flanzraich,** Coordinator, Medical Library Services; **Mahnaz Tehrani, AHIP,** Medical Librarian, Medical Library; **Stacy O'Connor,** Digital Media Specialist; **Steven Gaines,** Media Production Specialist; New York College of Osteopathic Medicine–Old Westbury
Objective: In 2009/10, iPod Touches were purchased for the institution's community. Librarians decided to use this new technology and create videos to market library services. A decision was made to create a series of unique short videos introducing library services. To make the video more appealing and inject some humor, the librarians decided to "poke" a little fun at the librarian stereotype.
Setting: The video was shot in an on-campus studio, using a blue screen, by two members of the academic technology group at the institution. Participants: The script was created by three medical librarians at the medical library. An actress was hired to play the part of "the stereotypical librarian." A member of the academic technology group was used to shoot, add screen captures and special effects, and edit the video. Program: The title of the series was called *Library Lens*. The first video created was about "Journal Locator." A description was given about what "Journal Locator" is and how to use it. The video was then posted on the library website, and a version was made that could be viewed on an iPod or iPhone.
Main Results: Because of the success in creating the video and the positive responses, more videos are in the works. Other topics of interest are: Loansome Doc, evidence-based medicine, mobile resources, helpful hints in searching databases, and accessing library resources from off-campus.
Conclusion: Because of the explosion of YouTube, videos are very popular. Marketing the library through videos is an excellent way to broadcast to library users. The more unique your video, the better. The library came up with a unique way to get information across to library users, and other libraries could follow this trend and have positive results.

38

Nursing E-books: Rethinking Collection Development at the Michigan State University Libraries

Heidi M. Schroeder, AHIP, Health Sciences Librarian, Michigan State University Libraries, Michigan State University–East Lansing
Objective: To better meet the collection development needs of nursing library users, especially online and distance users, the nursing librarian at the Michigan State University (MSU)

Libraries has focused on increasing the number of electronic books (e-books). This poster describes the acquisition, promotion, and analysis of e-books. Considerations and lessons learned are also discussed.
Methods: The MSU Libraries have acquired many nursing e-books through several platforms, including Rittenhouse, ebrary, Wiley, and Ovid. Title selections have been guided mainly by availability and collection development tools like Doody's Core Titles and the Brandon/Hill list for nursing. Most of the Wiley titles were acquired through a Committee on Institutional Cooperation (CIC) consortial purchase and were not selected by the nursing librarian at MSU. E-books were promoted during orientations and instruction sessions and via web pages, email communication, blog posts, the ANGEL course management system, and tutorials. To help users find nursing e-books, a list of titles by subject was created using LibGuides. E-books can also be found and accessed from the MSU Libraries' catalog. Usage statistics were obtained and analyzed to help gauge current e-book use.
Results: Usage statistics from 184 nursing e-books (73 Wiley, 55 Rittenhouse, 50 ebrary, 6 Ovid) were collected for 2009 and 2010 (Wiley, 2010 only). The types and organization of usage statistics varied by vendor. Of the 184 titles, 70 had 0 content retrievals (53 Wiley, 17 Rittenhouse), 59 titles had 1–9 retrievals, 29 titles had 10–49 retrievals, 10 titles had 50–99 retrievals, 11 titles had 100–499 retrievals, 3 titles had 500–999 retrievals, and 2 titles had over 1,000 retrievals. Thirteen of the Rittenhouse end ebrary titles had a total of 132 turnaways.
Conclusion: Selecting nursing e-books that are not accessed frequently or at all continues to be a challenge. Usage statistics from the current nursing e-book collection will be used to help guide future purchase decisions in various nursing subject areas. Implementing a pilot patron-driven acquisitions model for nursing e-books may be worth exploring in the near future.

41

ReThink: Enhancing Weill Cornell Medical Library's Treasure Hunts

Loretta Merlo, Manager, Circulation; **Helen-Ann B. Epstein, AHIP,** Head, Education and Outreach; **Paul Albert,** Digital Librarian; **Diana Delgado, AHIP,** Associate Director, Client Services; **Pattie Mongelia,** Education and Outreach Librarian; Weill Cornell Medical Library, Weill Cornell Medical College, New York, NY
Aim: Evaluate success of library orientation treasure hunts for incoming medical students and graduate students.
Background: Weill Cornell Medical Library began conducting treasure hunts in 2006 for incoming medical students. Since then, the first-year students' treasure hunt has expanded with three short learning vignettes on the online catalog (TRI-CAT), the GET IT Button, and PubMed searching. Teams must also complete a quiz. A treasure hunt was introduced for new graduate students in 2008. The same learning vignettes are presented, a list of items must be retrieved, and tasks need to be performed. Graduate students completed a word puzzle one year and in 2010 completed the quiz.
Methods: This is a summative analysis of treasure hunt evaluations demonstrating knowledge gained about the library's programs and services, comfort in using the library's website, and overall rating of the treasure hunt experience.
Results: On all the evaluations, the top 2 items learned about the library centered on physical location of materials and using Tri-Cat, the online catalog. On a Likert scale of 1–9, the questions asking the students to rate comfort in finding materials and comfort in finding materials on the library's website received a score of 5–9. On a Likert scale of 1–9, overall rating of the treasure hunt experience also received a score of 5–9.
Conclusion: Overwhelmingly the treasure hunts for incoming medical and graduate students are a fun way to get to know the staff, program, and services of the Weill Cornell Medical Library.

44

Rethinking the Role of Circulation Staff Within Library Promotion: Our Facebook Success Story

Gail Y. Hendler, Head, Information and Access Services; **Tiffany Tawzer,** Circulation Assistant and Reserves Coordinator; **Melissa Theroux,** Evening and Weekend Coordinator; **Stephanie E. V. Fitzgerald,** Circulation Assistant; **JaimeLyn Bears,** Circulation Assistant; **Amy R. Lapidow,** Information Services and Circulation Librarian; **Felix Hernandez,** Serials Assistant and Stacks Supervisor; **Sarah J. Parent,** Administrative Coordinator; **Collin Murphy,** Head, Library Information Technology; Hirsh Health Sciences Library, Tufts University, Boston, MA
Description: Creating a library Facebook presence offered an opportunity to rethink information delivery to internal and external customers. Imagining Facebook as a potential first service point also enabled us to see it as a professional development opportunity for circulation staff to gain hands-on training in needs assessment, outreach, PHP applications, project management, and implementation of user preferences. Our full-time circulation staff is the "face" of the library, skilled at providing frontline information delivery to customers at our busy, single service desk. And as part-time graduate library science students and savvy Facebook users themselves, they were eager to join the library's Facebook development team. Senior staff guided the project, beginning with and continuously incorporating customer input to determine content and direction. First, we researched existing library Facebook pages for ideas and collaborated with the student library advisory committee (SLAC) for feedback on survey questions and the best ways to boost response rates from the students and faculty of the four schools we serve. Second, we reviewed the results of the surveys and implemented their preferences in our content. Finally, we created workflow schedules and timelines, reviewed statistics, and opened the team to staff from other departments to help the project grow.
Conclusions: Facebook has provided circulation staff a means of forging connections in the Tufts University community that promote library staff, services, and resources while communicating library news and soliciting user input. The Facebook team learned the importance of soliciting and implementing user needs and feedback, gained hands-on experience with project management skills, and expanded their role to include involvement in university-wide social media committees and endeavors. The fan base has grown from a handful to more than 158 friends in under 1 year, and the page has become an institutional resource for others to use as a model. Social media presents an opportunity for libraries to rethink the roles of staff in meeting the evolving needs of customers and libraries. Tufts University Hirsh Health Sciences Library has successfully demonstrated that circulation staff can lead and implement library promotion with tools such as Facebook as they develop their professional skills.

47

Social Bookmarking as a Tool for Nursing Informatics: Implications for Library Reference and Outreach Services

Lin Wu, AHIP, Reference Librarian, Health Sciences Library and Biocommunications Center; **Ramona Patterson,** PhD Candidate, College of Graduate Health Sciences; University

of Tennessee Health Science Center–Memphis; **Samantha B. Miles,** Nurse Educator, Nursing Education, VA Medical Center, Memphis, TN

Objective: The poster will present multidisciplinary team teaching experiences utilizing Delicious.com for an "Informatics for Healthcare" course assignment that engaged students in using technology to collaborate, share, and organize information relevant to their roles as nursing students and future clinical nurse leaders. Student feedback will be examined and implications explored for library reference and outreach services.

Methods: The multidisciplinary teaching team included a librarian, a nurse informaticist, and a nurse educator. Fifty-four first-year professional entry students enrolled in a clinical nurse leader program completed a social bookmarking exercise using Delicious.com. The assignment required students to sign up with Delicious.com, create tags, bundle tags, share resources, and set up networks. Web resources for establishing collaborative networks focused on serious reportable events or never events, a group of health care–related event topics identified by the National Quality Forum. A six-item questionnaire was created by the team librarian using SurveyMonkey and distributed to students to collect feedback about using the social bookmarking tool. Students' responses to survey questions were tallied, and comments were reviewed and categorized.

Results: Findings revealed 81.5% (n=44) of the 54 students had never used social bookmarking sites before being enrolled in this course. Most, 94.4% (n=51), students thought Delicious.com held potential for professional use, and 66.7% (n=36) planned to use it in their future nursing roles. Responses indicated the capabilities of sharing and accessing information from any computer were the most valued aspects of the tool. Some students indicated confusion about how to create, use, and bundle tags.

Conclusions: This multidisciplinary collaboration provides insight and recommendations from multiple perspectives regarding using social bookmarking tools to promote informatics skills for health care. Incorporating Delicious.com in the course assignment challenged students to use technology for sharing information and professional collaboration. Libraries might consider using social bookmarking sites as tools to collect and deliver information relevant to specific patron group needs. Its uses might include information pages on special topics, subject guides, and course- or discipline-related resources.

50

Building a Research Showcase: A Library-based Model for Enhancing Institutional Repository Utilization

Robert J. Altman III, Web Developer, Translational Research Support; **Robert J. Engeszer, AHIP,** Associate Director, Translational Research Support; **Cathy C. Sarli, AHIP,** Scholarly Communications Specialist, Translational Research Support; **Paul A. Schoening,** Director and Associate Dean; Bernard Becker Medical Library, Washington University, St. Louis, MO

Objective: Researchers are increasingly being asked to demonstrate the impact of their work to funding agencies and make their findings more publicly accessible. As a showcase for current research, institutional repositories can serve as a solution to these challenges, but traditional models of author-maintained collections are difficult to sustain. A comprehensive library-managed model was created to enhance and repurpose institutional repository utilization.

Methods: The library serves a medical school comprising twenty-one academic departments, ten programs and divisions, nine specialized centers of research, and nine interdisciplinary research centers including a Clinical and Translational Science Award (CTSA) center. In 2010, the library migrated to a new institutional repository platform and adopted a library-mediated ingestion model consisting of new workflow processes and reallocation of staff to replace the traditional model of author self-ingestion. The new platform allowed for development of customized metadata templates for generation of specialized usage reports as well as identification of transdisciplinary collaborative efforts among authors and research groups. By migrating to an externally supported platform, the anticipated outcome was that this approach would appeal to authors by addressing barriers posed by the self-ingestion model.

Results: One year after its creation, the institutional repository contains approximately 1,500 items with more than 9,500 full-text downloads. Three evening library staff and a cataloging assistant have been trained to provide metadata and ingestion services, and a pilot collection showcasing the work of our CTSA-funded research center has been launched along with several other departmental collections that feature the capabilities of the new platform.

Conclusions: A centralized, library-based management and ingestion model is proving effective as a way to enhance faculty participation in the institutional repository. Adopting an externally supported platform allows the library to focus resources on working with faculty and less on technical oversight. Emphasizing the ability to showcase current research and track usage are features that resonate with both faculty and administrators, and having a library team in place to carry out all aspects of management and development has eliminated most barriers to faculty participation.

53

Rethinking Venues for Consumer Health Information: Offering Access and Instruction at a Women's Fitness Center

Dixie A. Jones, AHIP, Associate Director; **Talicia Tarver,** Digital and Information Services Librarian; **Mararia Adams,** Assistant Director and Head, Systems; **Montie' Dobbins, AHIP,** Head, User Access Services; **Mark Baggett,** Assistant Systems Librarian; Medical Library, Louisiana State University Health Sciences Center–Shreveport

Objective: To conduct a pilot project for making reliable consumer health information (CHI) available to the all-female population at a fitness center and teaching fitness center participants how to find CHI information.

Methods: With funding from the National Network of Libraries of Medicine, South Central Region, a computer and printer were placed at a Curves franchise with female members only. A train-the-trainer session was conducted by librarians for the Curves staff on how to find reliable CHI through MedlinePlus and the library's website, healthelinks, including its newly developed women's health page. Staff members were also shown how to access the mobile version of MedlinePlus. Healthelinks key tags and brochures were distributed so that members could take home access information for locating CHI on their personal computers and mobile devices. Publicity to members included a promotional poster and flyers. Evaluations were collected for the instructional sessions, and a computer usage log was maintained for one month.

Results: Unfortunately, the partnering Curves franchise closed. However, the project was able to continue at a different Curves location, where another train-the-trainer session was held. Evaluations of training sessions at both locations were very positive. The number of entries on the usage log at the first location was disappointing, although entries indicated that users who had recorded their searches did indeed find the information they were seeking. At the second location, the number of key tags distributed was tracked instead of keeping a usage log. In less than a month, eighty-seven key tags were handed out.

Conclusions: Anecdotal reports from the owners at both locations indicated that members were unaware of healthelinks and MedlinePlus prior to being introduced to them at Curves, that they found these resources easy to use, and that they were successful in finding and printing information on a variety of health topics.

56

How the University of Michigan Health Sciences Library Is Addressing the Needs of eRA Commons Users

Merle Rosenzweig, Librarian; **Anna E. Schnitzer,** Librarian; Taubman Health Sciences Library, University of Michigan–Ann Arbor

Objective: eRA Commons is an online interface used by National Institutes of Health (NIH) grant applicants, grantees, federal staff, and grantor agencies to access and share administrative information relating to research grants. Part of the eRA Commons profile of users is the list of publications. In July 2010, users of eRA Commons were required to use My Bibliography in MyNCBI to develop their publications lists and to meet compliance with the NIH public access policy.
Methods: Librarians have been using MyNCBI for several years and have provided instruction on how to use it to save PubMed searches, store relevant citations retrieved, and set up email alerts to keep current with the biomedical literature. Librarians of the University of Michigan Health Sciences Library believed that with their expertise in using MyNCBI, they could offer valuable instruction on how to use the My Bibliography to meet the requirements of populating the eRA Commons list of publications. To that end, a series of lectures have been offered to demonstrate the use of My Bibliography to manage publications and comply with the NIH public access policy in eRA Commons.
Results: The first of these lectures attracted over one hundred attendees. Expanding its traditional library services to encompass nontraditional ones that serve researchers' needs, the health sciences library continues to offer these lectures to University of Michigan eRA Commons users.
Conclusions: This poster will illustrate how eRA Commons is interfacing with My Bibliography in MyNCBI and will provide other librarians an example of what the health sciences library is doing to provide vital support to the research community at the University of Michigan.

59

Teaching an Online Informatics Course to Dental Hygiene Students: Challenges and Achievements

Samuel B. King, Assistant Professor and Librarian, Manchester Campus, Library and Learning Resources, Massachusetts College of Pharmacy and Health Sciences–Manchester; **Mariana Lapidus,** Associate Professor and Librarian, Library and Learning Resources; **Aditi Puri,** Assistant Professor, Forsyth School of Dental Hygiene; Massachusetts College of Pharmacy and Health Sciences–Boston

Objective: Describe the model developed for teaching informatics in a comprehensive online environment to undergraduate students of the Forsythe School of Dental Hygiene, Massachusetts College of Pharmacy and Health Sciences. Discuss the developmental and implementation issues encountered and the resulting solutions. Identify challenges and rewards of educating students in a virtual classroom by emphasizing interprofessional faculty collaboration as an effective strategy in enhancing student learning. The challenge was to use an interdisciplinary team to develop a fully online educational experience based on the Blackboard course management technology.
Methods: In order to create a comprehensive online learning environment, several modifications were made to the Blackboard interface. These included:
• designing a virtual classroom as an activity center for providing course documents, presentations, and other learning resources or exercises
• administering assignments and tests online
• scheduling regular live webinars to provide online face-to-face support to the students
• engaging students in ongoing mandatory Discussion Board activities
• using the Digital Drop Box to transfer information securely.
In addition, a methodology was developed for collaboration among faculty. Students were evaluated based on a five-part term project, discussion board participation, and two quizzes.
Results: The success of this approach was measured based on the students' grades in various assignments as well as the teaching faculty's ability to meet the challenges of online learning. Lessons learned might be valuable for other educators who are teaching or planning to teach students in a comprehensive online environment.
Conclusions: The creative use of a basic learning platform like Blackboard provides the capacity to develop a comprehensive online learning environment for students. This approach can be applied at various institutions to expand the educational role of librarians, especially in academic libraries and in those with small staff complements (such as hospital libraries). Blackboard and other technical tools used through this course can expand an educator's teaching effectiveness, optimize students' learning experience, and promote collaboration between the faculties from varied disciplines.

62

Scared and Squeamish: Identifying Fears and Barriers to Providing Information Services in the Real World of Rounding

Jennifer A. Lyon, AHIP, Clinical Research Librarian; **Nita Ferree, AHIP,** Assistant University Librarian; **Linda C. Butson, AHIP,** Assistant Director, Access and Outreach; Health Science Center Library, University of Florida–Gainesville; **Kathy Moeller, AHIP,** Director; **Kathryn Summey,** Public Services Librarian; Borland Health Science Center Library, University of Florida–Jacksonville

Objective: One of the most intriguing challenges in medical librarianship is integrating the librarian into the clinical rounding team to provide service at the point of care. The purpose of this study is to apply the techniques of action research to gain a better understanding of the personal fears and emotional barriers that inhibit individual success in the clinical environment.
Methods: While the necessary skills of database searching, literature analysis, and general knowledge required for clinical integration of medical librarians have been discussed, there has been minimal investigation of the "nuts and bolts" practicalities facing librarians approaching the complex challenge of entering the clinical setting. Beginning with reflection and internal small-group discussion, librarians at the Health Science Center Libraries, University of Florida, will identify common concerns, focusing on emotional barriers, ethical issues, physical practicalities, and confidence building. Drawing on our collective personal experience, we will then conduct surveys, interviews, and focus groups in the medical library community, leveraging social networking tools, to identify barriers and challenges facing individual librarians participating in clinical rounding. Finally, those results will be used to recommend methods for more effective preparation of medical librarians to enter and succeed in the direct patient care setting.

Results: Our initial focus group consisted of 5 subjects with 1–30+ years of experience in medical librarianship (1–15+ years in patient care settings). Five conceptual areas were identified:
1. maintaining professional detachment and confident demeanor, while experiencing emotionally disturbing or unpleasant patient cases
2. introducing oneself, explaining one's role, and determining one's place on the team
3. dealing with physicians' expectations and one's own lack of familiarity with clinical personnel, hierarchy, and environment
4. recognizing that the learning process happens mainly "on the job" or as self-directed exploration
5. establishing value, identifying advocates, and measuring outcomes

Conclusion: Medical librarians entering the arena of clinical care face personal, emotional, and professional challenges. Learning is primarily a self-directed, "on-the-job," experiential process. Most librarians lack training regarding hierarchy, roles, culture, and language in the clinical environment. Our initial results suggest that preparation in these issues may be vital to improving confidence and success.

65

The Weird, the Rare, the Beautiful, The Old: Are There Hidden Treasures on Your Library Shelves?

Dee Jones, AHIP, Head, Cataloging Section; **Deidra Woodson,** Metadata and Digitization Librarian; Medical Library, Louisiana State University Health Sciences Center–Shreveport

Purpose: This poster provides suggestions to assist librarians in the identification of valuable materials that may have been overlooked in their library holdings.

Brief Description: Knowledge gained in an MLA continuing education course, "Rare Medical Books: A Hands-on Introduction," alerted the authors to the possibility that valuable resources already in their library holdings may be unidentified. One must understand that a book's "value" can result from numerous factors other than age, and "value" is not always monetary. Scarcity, local interest, publishing anomalies, archaic subject matter, author affiliations, unusual formats, or obsolete publishing practices can make an otherwise insignificant book quite valuable. Recording these valuable attributes in the bibliographic or item record of the library's online catalog is essential to communicate this specialized information. It is also important to take these issues into consideration when weeding your collection.

Results: An understanding of these factors will help librarians look at their collections with a new set of eyes. The identification of these unique resources can provide added value to the library's existing services. An edition of *Gray's Anatomy* printed with Chinese woodblocks will add visual impact to a display; books on deadly diseases of the past bolster the historical significance of the collection; identification of a multi-edition cardiology textbook authored by a local faculty member demonstrates the institution's impact on medical practice; and historic works on a local yellow fever epidemic increases community awareness of the library's holdings.

Conclusions: Understanding and applying the guidelines presented in this poster can assist librarians in increasing the intrinsic value of their collections without the expenditure of additional funds.

68

Reflections on the Impact of a Library-based Personal Digital Assistant (PDA) Service

Rick Wallace, AHIP, Assistant Director; **Nakia Cook, AHIP,** Clinical Reference Librarian; **Travis Clamon,** Technology and Outreach Specialist; Quillen College of Medicine Library, East Tennessee State University–Johnson City

Objective: The purpose of this study is to determine if a library-based personal digital assistant (PDA) service is a significant factor in the clinical use of PDAs at an academic medical center.

Methods: Health sciences students, faculty, staff, and residents at an academic medical center were the participants. The library has serviced several thousand PDAs. This population was used as the basis for the study group. The study design is a cross-sectional study using survey methodology. The analysis was done based on age, college affiliation, and gender, and answered questions such as frequency of PDA use, usefulness of library's PDA service, and usefulness of programs the library installed on users' PDAs.

Results: One hundred and eight people responded. Seventy-five percent of the respondents would still be PDA users, even if the library did not assist or promote the service. Almost 90% were daily PDA users. Seventy-five percent stated that they would not feel confident that they could install the software without the library's help.

Conclusions: The survey results reenforced the library's feeling that the service fills a crucial need in the community it serves. The survey also provided information on the databases it buys, which gives the library information for future collection development.

71

Partnering with an Area Hospital to Provide Senior Consumer Health Information

Judy Willett, Nursing Computer Coordinator, Laughlin Memorial Hospital, Greeneville, TN; **Nakia Cook, AHIP,** Clinical Reference Librarian; **Rick Wallace, AHIP,** Assistant Director; Quillen College of Medicine Library, East Tennessee State University–Johnson City

Objective: The purpose of this project is to provide better consumer health information and services to a patient population of a hospital-based nursing home.

Methods: A hospital partnered with an academic medical library and obtained National Network of Libraries of Medicine funding. Wii devices with television monitors were purchased to improve physical activity in the nursing home. All nurses were trained to use MedlinePlus, and computers were made available for their use to search MedlinePlus in the nursing home. MedlinePlus materials were added to the consumer health library in the hospital, and DVD players were purchased to use for watching consumer health videos.

Results: The capacity of the nursing home and hospital to deliver consumer health information to patients and their families has been improved.

Conclusions: A small project like this is a great way to introduce a health care system to the services and products of the National Library of Medicine and empower the staff to better provide consumer health information.

74

Teaching Research Data Management: An Undergraduate/ Graduate Curriculum

Donna Kafel, Project Manager; **Mary E. Piorun, AHIP,** Associate Director; Lamar Soutter Library, Medical School, University of Massachusetts–Worcester; **Tracey Leger-Hornby,** Dean, Library Services; **Siamak Najafi,** Director, Research Computing and Academic Support; Worcester Polytechnic Institute, Worcester, MA; **Paul Colombo,** Consultant; **Elaine Russo Martin,** Director, Library Services; Medical School, University of Massachusetts–Worcester

Objective: This poster outlines curriculum frameworks and

competencies for data management instruction that can be delivered through a variety of methods (video, online self-paced, one-on-one instruction); identifies user requirements and interface design elements for a system that can host student data; and presents a communication plan developed to inform those interested in data management about the curriculum planning process and results.
Methods: The University of Massachusetts Medical School Library and Worcester Polytechnic Institute Library collaborated, with funding from the Institute of Museum and Library Services, to expand the scope of science library practices and promote the preservation of scientific data archives among medical and graduate and undergraduate science students. A steering committee and education board with representatives (faculty, librarians, and students) from each campus provided input into the new curriculum. Outside consultants spearheaded the development of the curriculum, translated the curriculum into smaller web-based learning objects, and coordinated the program evaluation. Faculty with students doing research for capstone projects at both institutions will pilot the new curriculum in the spring of 2011. Student feedback will be recorded through pre- and posttesting and be used to revise the curriculum prior to full-scale implementation.
Results: The curriculum focuses on nine areas: the data life cycle, data sharing requirements, naming conventions, metadata, storage, data ownership, security, privacy, and long-term access. Learning objectives were identified for each focus area and modified for the appropriate audience (undergraduate, graduate). Course content has been revised to be delivered in person over fifteen weeks in a classroom setting and online in short self-paced modules.
Conclusions: The need for research data management curricula was confirmed by students, literature review, and external experts we spoke to. Collaboration pointed to a need for differing strategies as to how this curriculum and repository might be implemented successfully at the partner schools. Collaborative planning process can be strengthened via formative evaluation techniques.

77

So You Want to Use Google: Comparing Google and Medical Databases

Dolores Z. Judkins, AHIP, Head, Instruction, Research and Outreach, Library, Oregon Health & Science University–Portland
Objective: The objective of this study was to compare search retrieval in Google, Google Scholar, PubMed, and CINAHL.
Methods: Searches on four topics were done in each of the resources, and results were compared. Comparators included relevancy of articles, currency, and total number of items retrieved.
Results: The comparison of the four resources was significant in that PubMed and CINAHL generally retrieved the most relevant set of articles, but Google, and particularly Google Scholar, sometimes had items that could be very relevant. The problems were that if Google and Google Scholar are used without using any of their advanced search features, retrieval was most often not current and always huge.
Conclusions: PubMed and CINAHL will give the most precise results, but for topics that are particularly hard to find, Google Scholar could be the best resource.

80

Junior Physician's Cognition, Attitude, and Application to Evidence-based Medicine

Hui-Chin Chang, Director, Library, Chung Shan Medical University Hospital, Taichung, Taiwan; **Long-Yau Lin,** Professor, School of Medicine; **Chung-Hung Tsai,** Professor, Institute of Medicine; Chung Shan Medical University, Taichung, Taiwan; **En-Li Hao,** Executive Secretary, Center of Evidence-Based Medicine, Chung Shan Medical University Hospital, Taichung, Taiwan
Participants: Resident and intern physicians who attended evidence-based medicine (EBM) training program at Chung Shan Medical University Hospital evidence-based medicine (EBM) center in Taichung in 2008.
Teaching: A lecture gave brief introduction about EBM for fifteen minutes before starting the EBM practice on a designed clinical scenario. The hands-on practicing started with constructing of population-problem/intervention/comparison/outcomes (PICO), searching strategy for relevant evidence, to appraisal the searched article (explain of RR, ARR, calculation of NNT, etc.) formulate the conclusion, finally, and make a decision.
Measurement Tool: Doubled translated into Chinese from Johnston (2003) measurement tool (total reliabilities: 0.80, 0.71, 0.88, and 0.74, variance 50.4%).
Statistic Methods: Descriptive statistical analysis, *t*-test, and ANOVA.
Results: There were 65 copies of measurement issued, and return rate is 100%. There is no remarkably variance between different status, sex of the participants, and the cognition of, personal application of, anticipated application and attitude toward EBM.
Conclusions:
1. The mean of cognition of EBM: 6th-year intern physicians higher than 5th.
2. The anticipated application of EBM: That it had a higher score might due to the alertness of coming clinical responsibility.
3. There is no significant difference between different status.
4. Anticipated application of EBM: Female is slight higher than male in 5th- and 6th-year intern physicians; male scored higher than female in resident physicians. There were no significant variations for cognition of, personal application of, anticipated application of, and attitude toward EBM, either between resident physicians and intern physicians or between male and female physicians.

83

Online Journal Backfiles: An Analysis of Actual and Projected Use

Heather L. Brown, Student, Certificate of Advanced Study in Health Sciences Librarianship, University of Pittsburgh, Pittsburgh, PA, and Head, Access Services; **Ann Kaste,** Digital Resources Librarian; McGoogan Library of Medicine, University of Nebraska Medical Center–Omaha
Objective: Journal publishers are digitizing their backfiles and offering one-time purchases to libraries. Research shows low usage of articles older than ten to fifteen years in the health sciences. The results of this research will show the actual usage of print and online journal backfiles and serve as a baseline for the consideration of the purchase of online backfiles for the health sciences library.
Methods: In this research, 2010 usage data were extracted from the library's online and print journal backfile collections and separated into clinical and research title groups. First, usage data were obtained from the publishers and compared for select library-owned backfiles and the corresponding current subscribed runs. Second, one publisher's usage data for library-subscribed titles with available but not licensed or purchased backfiles was obtained and compared to the publisher provided "access denied" report for the corresponding backfiles. Circulation, interlibrary loan, and document delivery data for these titles were also extracted. In-house use data were not used due to data integrity issues. The percentage of backfile and current run use for all titles

was calculated and compared, as well as analysis of clinical and research backfile journal usage.
Results: For titles in which backfile ownership and current access exist, the aggregate of backfile usage fell between 3% and 7% of total use. Of note, 1 title's backfile received 13% of its total use, while another showed declining usage of backfiles with volume age. For subscribed titles with no backfile ownership or access, the aggregated backfile turnaways and print usage for an 8-month period was 7%, though 10 titles' backfile usage ranged from 10%–26% of total use. The clinical versus research title backfile usage did not reveal any discernable differences. Although low usage of backfiles was typical, notable spikes in use of individual titles should be considered when evaluating backfile packages. Furthermore, the research process revealed several lessons learned, including the inadequacy of the current standard reporting system for online journal turnaways and an inconsistency of publisher provision of more telling turnaway reporting.

86

Health Information Outreach to Rhode Island Seniors

Kieran Ayton, Public Services Librarian, Peters Library; **Mary Ann Slocomb, AHIP,** Director, Library Services; Rhode Island Hospital/Lifespan–Providence

Objective: To educate seniors with varying computer skills on how to find and evaluate health information they find online
Methods: A statewide health information outreach program sponsored by grants from two funding sources, provided ninety-minute workshops on the National Institutes of Health (NIH) SeniorHealth website (www.nihseniorhealth.gov) and the MedlinePlus website (www.medlineplus.gov). These government-sponsored, consumer health websites are easy for people of all ages to use. The workshops were given to senior citizens, aged fifty-five and older, at public libraries and senior centers across the state. Seniors were given website search time with one-on-one attention. Seniors were also given folders with MedSpeak brochures, a bookmark/magnifier with the uniform resource locators (URLs), and handouts on the websites presented, additional consumer health websites, and website evaluation strategies.

89

Reviewing Research Consent Forms: A New Library Service

Debra R. Berlanstein, AHIP, Head, Reference and Research Services; **Ryan Harris, AHIP,** Reference and Research Services Librarian; Health Sciences and Human Services Library, University of Maryland–Baltimore

Objective: Librarians recognized a need for better quality consent forms while serving on the university's institutional review board. This involves ensuring that they are written at an appropriate reading level and are clear and understandable to prospective research participants. A pilot service was designed by the reference department to assist investigators in creating quality consent forms prior to their protocol submission.
Methods: An electronic form was developed for online submission of consent forms. The form is linked from both the library and the human research protection office web pages. A turnaround time of five business days is estimated for completing the review process. Once the documents are received, one of six members of the department is assigned to the request. Prior to the pilot, the staff was educated on best practices in writing consent forms. However, the major goal is to provide the investigator with a critique of the consent form from the perspective of a typical participant, offering suggestions on which areas need simplifying or clarifying. The pilot will be evaluated by the usage statistics as well as feedback received from a survey link provided to the investigator when reviews are complete.

95

A Comparative Bibliometric Analysis of Research in Complementary and Alternative Health

Thane Chambers, Research Librarian, John W. Scott Health Sciences Library; **Soleil Surette,** Research Librarian, Complementary and Alternative Research and Education, Pediatrics; **Trish Chatterley,** Public Services Librarian, John W. Scott Health Sciences Library; University of Alberta–Edmonton, Canada

Objective: Complementary and alternative medicine (CAM) has become increasingly popular and is gaining more acceptance in conventional medicine. As such, a new health paradigm is emerging: integrative medicine (IM), which emphasizes the therapeutic relationship and makes use of all appropriate therapies, both conventional and alternative. However, little is known about the research literature and publication patterns in this field.
Methods: A bibliometric analysis of research collaboration patterns in published CAM research will occur by analyzing authorship and institutional affiliations. This will provide data about the level of CAM practitioner participation in research, which is a potential marker for the progression of IM. We will conduct a search for research studies published in the top five CAM journals and the top five medical journals by impact factor over the last ten years. Articles will be divided according to clinical research design type and ranked according to the evidence pyramid. Author names and their institutional affiliations will be extracted and whether they are first, middle, or last authors. Descriptive statistics of the number of first authors who are CAM practitioners, how often they published, and who they published with will be calculated.
Results: An analysis of 4,087 abstracts from CAM journals indicates a lack of high evidence studies (randomized controlled trials [RCTs], systematic reviews, meta-analyses). Many pilot studies, case studies, and lab studies were published. In clinical trials, CAM tended not to be compared to placebo or conventional medicine. In high-impact medical journals, 2,781 citations were identified. Primary research studies tended to be RCTs or case reports. There were many review articles. Studies reporting on the efficacy of CAM tended to have negative or no better than placebo results. In both sets of journals, few CAM practitioners were first authors.
Conclusions: CAM journals appear to be the first point of published research in CAM research. Based on abstracts, rigor is not high in the studies published in these journals. The quality of studies varies between the CAM and conventional journals. Syntheses of CAM evidence is a popular publication choice in conventional journals.

98

Rethinking Use of Cataloging Skills: Assigning Metadata to Continuing Medical Education Programs

Hattie H. Vines, AHIP, Cataloging Librarian; **Richard A. Peterson, AHIP,** Deputy Director; Medical Center Library and Archives, Duke University, Durham, NC

Objective: A new role for cataloging librarians can be found in partnering with content providers to add metadata to enhance retrieval. Catalogers can apply their skills to access nontraditional, nonbibliographic, nonlibrary material. This poster describes a health sciences library's experience utilizing its cataloging knowledge, resources, and skill set externally through its work with the institution's continuing medical education (CME) department.

Methods: The goal of the project is to capture CME content from presentations and make it accessible to the medical center, affiliated hospitals, and nonaffiliated physicians through the CME web portal. The library's involvement began October 2008 with assigning metadata to magnetic resonance imaging (MRI) case conferences presented by the department of radiology's division of musculoskeletal imaging. Cases are presented by the division's director and attended by residents and fellows. The library is provided access to audio recordings, MRIs, and keywords for cases to be processed. The cataloger enriches the content by assigning Medical Subject Headings (MeSH) to cases before inputting the data into the content management system. There are four case conferences weekly, and each has approximately ten cases with keywords assigned by the authors. Each case is searchable using MeSH terms after being released to the web portal.
Conclusions: Launched May 2009, the MSKLibrary is a web-based CME activity for practicing radiologists, with approximately 1,500 cases currently available. Indexing by catalogers adds greater precision to CME resource databases with outcomes tracking abilities.

104
Seeing the Future of Digital Archives: A Vision Science Research Repository Pilot Project
Mark S. Bolding, Research Associate, Vision Science Research Center; **Elizabeth R. Lorbeer, AHIP,** Associate Director, Content Management; **Lisa A. Ennis,** Systems Librarian; Lister Hill Library of the Health Sciences; University of Alabama–Birmingham
Objective: The project's objective is to create an institutional repository using DSpace open source software to collect, share, and preserve the intellectual property of the university's school of optometry. The goal is to seamlessly connect the school's data, knowledge, and scholarship to the greater global health and vision community by providing online access to images, data sets, streaming media, protocols, lab notes, article preprints, works in progress, and brain-mapping data. The initial start up of the repository focused on openly sharing digital assets created by the faculty and students of the university's school of optometry and its center for the development of functional imaging. While some ophthalmology departments have similar repositories for their in-house users, few schools of optometry have such repositories, and there is little involvement from the optometry and vision science community in university repositories.
Methods: A digital archive was created using DSpace open source software and a hosted Linux-based server. Six terabytes of network attached storage were provisioned for the repository via the network file system (NFS). Companion projects (a wiki and blog) were initiated to increase project visibility and to provide a collaborative workspace for the repository.
Results: The pilot research repository at the university provided a needed place to self-archive publicly funded research, both publications and datasets, as well as having two other benefits:
1. increased visibility and accessibility of research and publications
2. supported collaboration between labs.
The companion blog and wiki were crucial for increasing the visibility of the project and providing a forum for feedback and discussion.
Conclusions: The repository made primary and unique materials created at the university immediately accessible on the Internet to students, researchers, and others. An open institutional repository may provide potentially the widest possible sharing of professional works in the health information community for such a low investment of resources. Building a good relationship with the university's research community is crucial for the success of a research repository.

107
Comparison of Citation Use, Link Resolver, and Vendor Statistics
Sandra L. De Groote, AHIP, Scholarly Communications Librarian; **Deborah D. Blecic, AHIP,** Bibliographer, Health and Life Sciences; University Library, University of Illinois–Chicago
Objective: Link resolvers facilitate access to available full-text articles and tabulate journal use, but users can get to the articles from other paths, so they provide only partial statistics. Vendors and publishers provide COUNTER-compliant counts of the number of articles retrieved from their platforms. If a journal is available on multiple platforms, then several sets of statistics need to be merged to get a complete count of all retrievals. Citations of research publications illustrate use for research purposes. Link resolver statistics, vendor supplied statistics, and citation counts were examined to determine how well they correlate.
Methods: For four health sciences colleges at the study university, the number of times each journal title was cited in 2010 was collected. To identify faculty authors, searches by author affiliation at the study institution were performed in the ISI Web of Science to find all articles written by faculty members in the colleges of medicine, dentistry, pharmacy, and nursing in 2010. The number of times a journal was cited was entered into spreadsheet along with the use statistics collected from the journal link resolver and vendors and publishers. Two types of correlation analysis were run on the data.
Preliminary Results and Conclusions: Each set of data was compared to each other, and both Spearman rank order and Pearson product-moment correlation coefficients were calculated to examine the degree of correlation. There was a positive correlation between the vendor statistics and link resolver data, with the publisher data showing higher use statistics overall. The results indicate link resolver data could reliably suggest high- and low-use journals, avoiding the need to systematically obtain and merge data from multiple publishers for collection development decisions. A positive correlation also exists between citation use and online use statistics when a journal is cited. However, many journals that are moderately or heavily used are not cited. Citation data as a subset may tell the library which journals are most used for research by faculty, while vendor or publisher use statistics and link resolver data reflect all types of use, including educational and clinical.

109
Enabling Clients to Ask Questions: A Comprehensive Approach to Health Literacy
Makhdum Ahmed, Health Literacy Consultant; **Sarat Munjuluri,** Health Literacy Consultant; George F. Smith Library, University of Medicine and Dentistry of New Jersey–Newark
Objective:
1. Describe the "Ask Me" patient advocacy tool
2. Use the "Ask Me" framework to design disease specific education modules
3. Understand how "Ask Me" can be used to produce a comprehensive health literacy movement
Methods: Our target population is university hospital's patients from Essex County, including 49% from Newark and 17% from East Orange, Irvington, and Orange who lack basic literacy skills. An even higher proportion of the population falls into the category of lacking basic health literacy than the proportion that lacks basic literacy. According to the Census Bureau, 1 in 4 Newark residents speak English less than very well. Furthermore,

35% of the population over age 25 has less than a high school diploma. The hypothesis here is to engage the patients more in their health care delivery by encouraging them to ask questions of their health care providers and providing them with specific tools to do so. Improved communication between patients and providers has a positive impact on patient outcome, while decreasing cost in the long term.
Results: Ninety-four percent of the 241 nursing staff at the university hospital who received training on patient advocacy using "Ask Me" reported that they will use the clear communication technique discussed in their everyday interactions with patients.
Conclusion: Creation of materials from readily available health education information and integration of this comprehensive approach to "Ask Me 3" in the university hospital would translate into better health outcome of its patients.

113
Enhancing Faculty Services: A Collaborative Approach
Darcel A. Bryant, AHIP, Student, Certificate of Advanced Study in Health Sciences Librarianship, University of Pittsburgh, Pittsburgh, PA
Objectives:
• To determine if current services are meeting changing needs of faculty.
• To identify future services and resources faculty perceive as important for teaching and research.
• To develop a model library user survey.
Methods: Setting: An academic health sciences library serving a university hospital; colleges of medicine, dentistry, and pharmacy; and division of nursing and allied health. Population: Nursing faculty. Description: Using a Likert-type scale, the survey measures services to faculty and seeks faculty input on expectations of services. Emails were sent to all twenty-four nursing faculty, which explained the study and included the survey link.
Results and Conclusion: Of 20 responses, most respondents rated services and resources as extremely important. Over 45% preferred using email over instant messaging to communicate with librarians. Over 60% were satisfied with the usefulness of the library website. Responses will be used to modify existing services and, if needed, establish new strategies.

116
Mobile Delivery: Using Quick Response Codes to Access Information at the Point of Need
Nancy T. Lombardo, Associate Director, Information Technology; **Jeanne Marie Le Ber,** Associate Director, Education and Research; **Justin Barbour,** Assistant, Education and Information Technology; Spencer S. Eccles Health Sciences Library, University of Utah–Salt Lake City
Objective: This poster covers the use of quick response (QR) codes to provide instant mobile access to information, digital collections, educational offerings, the library website, subject guides, text messages, videos, and personnel in the library. The authors explain the array of uses and the value of using QR codes to push customized information to patrons.
Methods: The authors will develop the case for using QR codes for mobile delivery of customized information to patrons. In addition to the obvious uses, such as linking to course listings, course registrations, and subject guides, QR codes can be utilized to direct patrons to digital collections; to deliver personalized, private consumer health and patient information services; and to encourage participation in clinical trials. By creating custom queries to specific topics in specialized digital collections, libraries can lead patients and patrons to unique materials specific to their diseases or disorders. Clinical trials can be advertised and linked to contact information, which can be snapped and stored on a mobile phone. Sensitive information can be delivered in complete privacy by posting QR codes with links to high-quality resources in classrooms, restrooms, and hallways.

119
Rethinking Access with Resource Description and Access (RDA)
Michael A. Wood, WCMC-Qatar Liaison Librarian, Weill Cornell Medical Library, Weill Cornell Medical College of Cornell University, New York, NY; **Chamya P. Kincy,** Life and Social Sciences Cataloger, UCLA Library, University of California–Los Angeles
Objective: To present some of the features, changes, and benefits that resource description and access (RDA) will bring to the cataloging community and end users. RDA will incorporate the conceptual models of functional requirements for bibliographic records (FRBR) and functional requirements for authority data (FRAD) to enhance the user experience. RDA will be the new standard for describing resources in the digital environment by providing guidelines and instructions for description and access for resources covering all types of content and media. Moreover, it will be used by libraries, museums, publishers, and others.
Methods: This poster will selectively highlight some of the features, changes, and benefits of RDA. The investigators will consult RDA, FRBR, FRAD, and the literature that is readily available to selectively highlight some of the changes and benefits of these tools when fully implemented.

122
E-journal Verification: Is It Worth the Effort
C. Steven Douglas, AHIP, Head (Acting), Collection Management, Health Sciences and Human Services Library, University of Maryland–Baltimore
Objective: This poster describes a systematic effort to verify holdings and connectivity for subscribed electronic journals.
Methods: Working with our subscription records, we established a definitive list of our subscribed electronic journals. Paraprofessionals in the department then checked each title, answering the following questions:
• Is it in the A–Z list?
• Can you open the earliest and latest full text?
• Do the dates in the A–Z list match the publisher's dates?
• Is it in the catalog?
• Is there a working Find-It link?
• Do the dates in the Find-It link match those in the A–Z list? There was also a place for the paraprofessional to enter comments. Upon completion, the checklists were turned over to the digital resources librarian and serials cataloger for analysis and correction of problems found.
Results: All titles were checked between April 1, 2010, and May 7, 2010. The digital resources librarian and serials cataloger analyzed and corrected the problems found.
Conclusions: A significant number of problems were found. Upon correction, we have noticed a sharp decrease in the number of patron reported holdings problems. The project will be continued with the goal of checking each title at least twice a year.

125
Rethinking How to Create a Health Disparity Tutorial
Lisa A. McGuire, Assistant Librarian, Health Sciences Libraries, University of Minnesota–Minneapolis

Objectives: Health disparities refer to differences between people that result in how diseases are diagnosed or treated, or how a disease affects a group; it also refers to access and/or availability of health care. Health disparities are a major factor in driving up health care costs in the United States. In spring 2009, I was awarded a professional development leave from my institution to create an online tutorial on how to conduct research into a health disparity issue. The major objectives of this project are to investigate different modes of presenting material in a tutorial format using various software, creating the tutorial, and then presenting it to various entities on campus to develop awareness and usage of the tutorial.
Methods: A literature search was done to identify best practices in creating online tutorial modules. Content for the health disparity case study used in the tutorial was created using Camtasia and Lectora software. Promotion of the tutorial began with identified entities in the academic health center.

128

Outreach Impact Study: The Case of the Greater Midwest Region

Jeffrey Huber, Director, School of Library and Information Science, University of Kentucky, Lexington, KY; **Jacqueline Leskovec,** Program Coordinator; **Ruth Holst, AHIP, FMLA,** Associate Director; National Network of Libraries of Medicine, Greater Midwest Region, Library of the Health Sciences, University of Illinois–Chicago; **Emily Kean,** Student; **Trina Altman,** Student; **Kate Dupin,** Student; **Phillip Fitzgerald,** Student; School of Library and Information Science, University of Kentucky–Lexington; **Zach Young,** Information Services Librarian, Alice Whitman Memorial Library, Frontier School of Midwifery and Family Nursing, Lexington, KY
Objective: This project's goal is to engage library and information science (LIS) students in an outreach impact study. Students are conducting the study to determine the impact that National Network of Libraries of Medicine, Greater Midwest Region (NN/LM GMR), funding has on the ability of members to perform outreach on behalf of NN/LM. This project resulted from a subcontract from NN/LM GMR to the University of Kentucky School of LIS.
Methods: Each project objective is assessed by content analysis and survey methodology. Content analyses are conducted by searching the twenty-two final reports submitted by the NN/LM GMR office for concepts relating to specific objectives. Each final report is reviewed by at least two students to ensure inter-rater reliability. Once students reviewing each report agree on common themes, the themes are posted for the entire group to review. Also, the principal investigators of the twenty-two projects identified by the NN/LM GMR office for inclusion in the analysis are surveyed regarding issues related to the specified project objectives. Once the results are reviewed and summarized, they will be compared with results of the content analyses. Combining results of the content analyses and survey will allow a more comprehensive response to each objective.
Results: Results indicated that outreach projects supported by NN/LM GMR funding improved access to biomedical information for professionals and the general public. Barriers to conducting outreach projects included time constraints and commitments, staffing, scheduling and absenteeism, inadequate space, and issues associated with technology (e.g., hardware and software, Internet connectivity and firewall issues, and creation and use of new technologies.)
Conclusions: The majority of project principal investigators indicated that their attempts to conduct outreach were successful. Moreover, most noted that outreach had a positive impact on professionals as well as the general public. In general, it seems that negative outcomes, as with most barriers to conducting outreach, may be mitigated by more thorough planning.

131

Low Cost and Low Effort Events for Effective In-person User Engagement

Elaine M. Attridge, Marketing Librarian/Physician Librarian; **Ellen Ramsey,** Manager, Technology in Education; **Daniel T. Wilson,** Associate Director, Collection Management and Access Services; Information Services, University of Virginia–Charlottesville
Objectives: To increase patron awareness of the library's role as a place to learn about new technology that supports the work of health professionals and students, and to learn more about our patron's use of technology by providing easy to organize and support in-person events.
Methods: In 2010, our library recognized that we were doing a good job of engaging our patrons online via social networking tools. We also wanted to continue to develop relationships with direct personal contact. In the past, the library's organized events had been time intensive and therefore costly. We developed two ideas that provide high user engagement at a low cost: a technology "petting zoo" and a monthly talk series called "First Thursdays at the Library." The two-day "Petting Zoo" was a library-staffed table located in high-traffic areas of our academic health sciences center that exhibited different technology, such as smart phones and an iPad. "First Thursdays in the Library" is a centrally located, monthly event where participants view a talk on a specific topic, and an outside expert facilitates discussion. The library's emerging technologies librarian often displays topic-appropriate resources at this event.
Main Results: Over 340 people attended the 2-day technology "Petting Zoo." Documented feedback from attendees and library staff was very positive, and results of an informal poll about technology use obtained. "First Thursdays in the Library" has consistently attracted approximately 45 attendees each month. Comments have been favorable.
Conclusion: High patron engagement has occurred, and minimal effort is required to organize and staff both events. One immediate innovation made after the "Petting Zoo" is that the library now has iPads available for patron checkout. We expect that connections made with patrons during these events will result in ongoing conversations about technology use in the curriculum and clinical areas, and a greater awareness of the technology expertise and resources available from the health sciences library.

134

A Clearinghouse for Executive Health Sciences Information and Services

Whitney A. Townsend, Liaison Services Librarian; **Judith Smith,** Liaison Services Librarian; Taubman Health Sciences Library, University of Michigan–Ann Arbor
Objective: To create an online, searchable clearinghouse of resources and services of interest to the clients of our Health Sciences Executive Research Service (HS-ERS).
Methods: The HS-ERS provides specialized information services to the executive officers and administrators of the university's health system, medical school, schools of dentistry, nursing, and public health, and the college of pharmacy. Clients are often unaware of the valuable services and information sources that are provided by units in the health system and across the campus as a whole. One facet of the information services that we provide includes connecting our clients with these units and their wide array of information and specialized services. To effectively foster these connections, strengthen campus communications, and connect our clientele to the best information resources,

the liaison librarians of the HS-ERS needed quick access to a "clearinghouse" of the many units on campus that provide specialized information and services of potential interest. This project involved creating a searchable platform for this clearinghouse, populating it with descriptions of the types of information and services that each unit provides, and identifying additional units to include.
Results: The HS-ERS clearinghouse became a multidisciplinary effort, utilizing the resource and skills of librarians and library staff from the health sciences library, the business administration library, and the art, architecture, and engineering library.
Conclusions: The evolution of the HS-ERS clearinghouse into a multidisciplinary effort allowed it to become a valuable and flexible resource for ourselves, our clients, and our library colleagues.

137

Librarians Outside the Library: A Look at Dealing with Some of the Benefits and Pitfalls

Irene M. Lubker, Research Librarian; **Barbara A. Wright, AHIP,** Reference Services Librarian; **Margaret E. Henderson,** Research Services Librarian; Research and Education Services, Tompkins-McCaw Library for the Health Sciences, Virginia Commonwealth University–Richmond

Objective: In line with our objective of supporting our students, faculty, staff, and researchers without being confined to the library space, librarians have established many new connections with faculty and the different health sciences schools. We continue to support our users by providing research and other services, both inside and outside the library building. Support roles include librarians' participation in providing research support to special classes and groups on campus and joint faculty appointments.
Methods: The service desk was restructured so librarians could work outside the library. Librarians were available for consultations at the service desk. Our visibility outside the library was enhanced by our scholarly circuit librarian program, librarian liaison program to different schools and departments, active participation on campus-wide committees (i.e., qualitative research interest group, center for clinical and translational research, the research incubator), and cosponsoring a campus "Research Day" in the library and a "Technology Day."
Results: The librarian role has expanded to co-teaching special classes outside the library, involvement with nonlibrary research endeavors, and health disparities activities. Some librarians now have joint faculty appointments in different health sciences departments, and one serves on the institutional animal care and use committee. Librarians have been able to host lunch-and-learn sessions for the research incubator and presented helpful information to several groups on campus. We have also been invited to sit on accreditation and curriculum committees and coauthored papers with academic faculty that have been presented at nonlibrary conferences. Furthermore, more researchers are seeking help from the library, and they continue to refer others. However, rewarding as these new connections with academic programs are, there are also unique challenges. Communication problems, time challenges, personnel challenges, and balancing roles and responsibilities have surfaced.

140

Bridging the Academic-Practice Divide: Facilitating Collaboration within Public Health

Kathleen Amos, AHIP, Sewell Learning Partnership Librarian Fellow, Public Health Foundation, Washington, DC

Objectives: To build a virtual learning community to facilitate knowledge exchange and collaboration between academic faculty members and practitioners in the field of public health and, in so doing, to explore the relevance and utility of "library" skills in nontraditional contexts.
Methods: A work-group consisting of academic faculty and public health practitioners, and coordinated by a librarian, was formed to develop the learning community concept for academic health departments and define the activities of such a community. The structure and implementation of the learning community will be informed by the existing evidence as well as input from target audiences. A review of literature and other resources will be conducted to identify previous efforts to promote the development of relationships between educators and practitioners, barriers to such initiatives, and strategies for success. In designing the structure of the community, learning communities and other online groups will be explored and feedback will be gathered from public health professionals. The community will be advertised to the public health field through both traditional and social media channels. The applicability and usefulness of information management skills will be considered at each stage in this development process.
Results: The Academic Health Department Learning Community officially launched in January 2011. Public health professionals from both academia and public health practice located throughout the country have joined this community of practice. Meetings are held by conference call, and initial space has been developed online to facilitate sharing individual and organizational experiences. Review of the published literature has informed creation of resources for community members and generation of meeting discussion topics. Experiential knowledge and resources are being collected from community members, organized, and disseminated online. Exploration of community models is underway, solicitation of input from stakeholders is ongoing, and the structure of the learning community continues to evolve.
Conclusions: Response to the learning community has been positive, and the community continues to grow. Information management skills—especially those related to discovering, organizing, synthesizing, and disseminating information—have proved highly relevant in this context.

143

Aligning Library Instruction with the Needs of Basic Science Graduate Students

Donna O'Malley, Instruction and Systems Librarian; **Frances Delwiche,** Reference and Instruction Librarian; Dana Medical Library, University of Vermont–Burlington

Objective: A previous study conducted on the information-seeking behavior of basic science researchers prompted the development of a new model for providing instruction for basic science graduate students. The goal of the new model was to improve the students' ability to effectively utilize the scholarly literature and to diminish the knowledge gaps identified in the aforementioned study.
Methods: The library's traditional walk-in workshops and brown bag sessions were poorly attended and failed to reach basic sciences graduate students. In designing a new instructional model, librarians focused on three conclusions from the earlier study:
• The literature review must be approached as a process, encompassing a range of resources.
• Basic science researchers are highly collegial.
• Despite possessing advanced literature searching skills, basic science researchers nevertheless have knowledge gaps in key areas.
The new model incorporated various novel approaches:
• creation of a cohesive curriculum to be covered in a series of hands-on workshops

• consultation with teaching faculty on curricular content and scheduling
• co-teaching with subject experts from outside the library
• expanded marketing strategies
• utilization of videotaping and a dedicated website to support learning
• detailed assessment, including demographic analysis, observations, and surveys

Results: Historically, the library offered an average of 10 brown bag sessions each fall. In the previous 4 fall semesters, the sessions attracted an average of 21 attendees, including 8 basic science graduate students per semester. In fall 2010, under the new model, the library offered 6 brown bag sessions plus a 7-part workshop series targeting graduate students. Altogether, the fall 2010 sessions attracted 129 attendees, including 66 basic science graduate students. A survey of instructional effectiveness midway through the series indicated attendees were highly engaged, were able to grasp advanced concepts, and valued the hands-on aspect. Most attended multiple sessions, often with colleagues. A post-survey revealed that attendees liked the instruction format and acquired information and skills applicable to their studies.

Conclusion: A complete reenvisioning of the planning, delivery, and assessment of library instruction successfully increased the total number of attendees, as well as the number of basic science graduate students reached.

146

Re-viewing Where We've Been, Re-thinking Where We're Going: Hospital Librarians Contribute to Health Care Professionals Evidence-based Practice

Ellen Justice, AHIP, Medical Librarian; **Ene Belleh,** Medical Librarian; **Sharon Easterby-Gannett, AHIP,** Associate Director, Medical Libraries; Lewis B. Flinn Library, Christiana Care Health System, Newark, DE; **Barbara Henry, AHIP,** Community Health Librarian, Wilmington Hospital Medical and Community Health Libraries, Christiana Care Health System, Wilmington, DE; **Christine Chastain-Warheit, AHIP,** Director, Medical Libraries, Lewis B. Flinn Library, Christiana Care Health System, Newark, DE

Objective: To demonstrate how librarians working for a large hospital system with over 1,000 beds and over 250 residents are involved in teaching health care professionals about evidence-based medicine (EBM) searching, as well as to describe the methods used to assess students' skills.

Methods: The librarians employ various teaching methods including presenting at nursing, medical, and allied health education conferences; small group; and one-on-one instruction. For many years, the librarians have shared their expertise in searching for evidence and their knowledge of EBM concepts and increased their involvement in the hospital's educational activities. They teach at many of the hospital's educational conferences including grand rounds, develop teaching resident rotations, and play an active role in the curriculum of the family and community medicine and pediatrics residencies. Recently, they have been asked to rethink their EBM/evidence-based practice (EBP) presentations to department of medicine residents so that they can be integrated into a new EBM curriculum. Librarians assess their instruction with feedback forms filled out by students. For some of the educational sessions, students' self-perceived skills pre- and post-informatics intervention are assessed.

Results: The librarians teach advanced search techniques limiting results to evidence-based literature. For medicine-pediatrics interns, a baseline search is required as a springboard for discussion. Family medicine residents are given a pre- and post-search skills assessment survey. A confidence survey is used to assess some of the resident's self-perceived skills. The medicine-pediatrics and family medicine residents indicate improvement in the informatics skills surveyed as well as increased confidence in being able to find the best evidence and present a literature review in a structured format. The family medicine residents survey results indicate that they learned how to use Medical Subject Headings (MeSH), truncation symbols, and explode and focus and to limit to EBM articles.

Conclusions: The positive results launched a two-week EBM journal club curriculum in 2011. Librarians teach about EBM databases, and medicine faculty teach about critical appraisal. This curriculum replaced the didactic teaching of the past.

149

The T-shaped Librarian Rethinks Librarians' Roles in Hospital Settings

Rebecca A. Birr, AHIP, Library Director, Health Sciences Library, Maricopa Integrated Health System, Phoenix, AZ; **Kathy Zeblisky, AHIP,** Medical Librarian, Health Sciences Library, Phoenix Children's Hospital, Phoenix, AZ; **April Aguinaga,** Medical Librarian, Health Sciences Library; **David Drachman,** Biostatistician, Department of Research; Maricopa Integrated Health System, Phoenix, AZ

Objective: At MLA '06, we presented a poster, "From Artsy to Zany: Hospital Library Committee Participation," to identify committees in which hospital librarians were currently participating to offer ways librarians could increase their visibility. We will assess how these roles have changed in the last five years.

Methods: During MLA '10, Daniel H. Pink discussed the T-shaped employee, who has both depth of specialized knowledge and breadth of reach. In *A Whole New Mind,* he discusses the "boundary crossers" who "develop expertise in multiple spheres." The results of our previous poster celebrated 327 T-shaped, boundary-crossing hospital librarians who reached out to a wide range of departments in their hospitals by serving on committees. We propose that hospital librarians are continuing to "rethink" their roles and are demonstrating their value to their hospitals in even more ways than we discovered in 2006. A survey of hospital librarians and their current participation in committees will be conducted. Survey results will be reviewed by a biostatistician and shared with our colleagues so they might discover ways that hospital librarians are rethinking their involvement in their institutions by serving on committees or taking other leadership roles, thereby improving their visibility and proving their value.

Results: The survey is complete, and there were 339 respondents. The data are under analysis, and results will be shared at the meeting.

Conclusions: Conclusions will be shared at the meeting.

152

LibAnswers Usability: Rethinking Online Reference

Lindsey R. Main, Graduate Assistant, User Services; **Kathleen McGraw,** Assistant Department Head, User Services; **Anita Crescenzi,** Systems Development and Web Access Librarian; Health Sciences Library, University of North Carolina–Chapel Hill

Objective: LibAnswers is a new third-party application that provides presentation and tracking tools for email, chat, and text reference services. A health sciences library serving schools of dentistry, nursing, medicine, pharmacy, and public health and a large teaching hospital launched LibAnswers in July 2010. The objective of this study is to determine the strengths and weaknesses of the library's LibAnswers public interface in order

to identify if and how the users' experiences can be improved.
Methods: Multiple methods will be used to assess the usability of LibAnswers as implemented by the library. Data from LibAnswers and Google Analytics about users, usage, and navigation will be analyzed for patterns of interaction. A usability lab study will be conducted with representative scenarios and tasks in which representative users will be asked to use a "think aloud" protocol and complete follow-up questionnaires. In addition to assessing effectiveness, efficiency, and satisfaction, the scenarios and tasks will help us to identify features that work well and/or usability problems. The findings will be analyzed to learn how the users interact with new service and to identify opportunities to improve the user experience.

155

Library Participation in Rethinking the School of Medicine Websites with a Zero Budget

Carol Gordon, Reference and Education Librarian; **Connie Poole, AHIP,** Director; **Rhona Kelley, AHIP,** Head, Reference and Education; **Fran Kovach, AHIP,** Reference and Education Librarian; Medical Library, School of Medicine, Southern Illinois University–Springfield
Objective: Redesign of the Southern Illinois University School of Medicine (SIUSOM) website on a zero budget and without full-time web development staff.
Methods: A central web development team, including representatives from the medical library, is a multi-professional group responsible for the design and maintenance of the school's home page. Systematic review of external sites determined preferred functionality and organizational approaches. The library's web developer provided draft pages. Photoshop and Fireworks were used to design the new look, and Dreamweaver was used to create the page structure and style sheets. A customized content management module based on open source systems was written for the school of medicine's home page and associated centrally supported pages. Hypertext markup language (HTML) templates for required logo and navigation placement were created by the library web developer for use by departments. Training courses were held for departmental web editors in transitioning to the new school of medicine template. The library web developer serves as the main trainer for departmental web developers.
Results: Overall, response to the new look and navigational structure were positive. After initial release of the portion of the site on the content management system, some modifications were made in response to user feedback. The school of medicine website has begun to look more unified as departments adopt the new template. Ongoing questions and development are handled by the web development team via an email alias and meetings.
Conclusions: Use of a multi-professional group to develop the school's web presence extended the school's expertise without requiring new or dedicated positions. Combining library organizational and training skills with information technology and public relations expertise gave a holistic view to web development. Redesign of a website by a team representing different viewpoints and expertise can be a positive experience.

158

Rethinking Professional and Personal Competencies for Entry-level Academic Health Sciences Librarians: Results of a Delphi Study

Jodi L. Philbrick, Course Coordinator, Health Informatics Program, Department of Library and Information Sciences, University of North Texas–Denton
Objective: To identify the professional and personal competencies needed of entry-level academic health sciences librarians from the perspectives of (1) academic health sciences library directors, (2) library and information sciences educators specializing in health sciences librarianship, and (3) adjunct faculty or health sciences library practitioners.
Methods: A delphi study, with four rounds of questionnaires, was conducted using SurveyMonkey. In the first round, each group of participants provided professional and personal competencies, and in the second round, each group rated the professional and personal competencies identified in the first round. In the third round, each group re-rated the professional and personal competencies, and in the fourth round, the participants were given the lists of professional and personal competencies created by each group to choose which one they preferred for entry-level academic health sciences librarians.
Results: Eighty-eight percent of the participants preferred the library and information sciences educators' listing of professional competencies, and 56% of the participants preferred the library and information sciences educators' listing of personal competencies.
Conclusions: From the participants' viewpoint, library and information sciences educators specializing in health sciences librarianship have an understanding of the professional and personal competency needs of entry-level academic health sciences librarians.

161

Building an E-science Portal for Librarians: A Model of Collaboration

Donna Kafel, Project Coordinator; **Myrna E. Morales,** E-science Project Assistant; **Robert Vander Hart,** Community, Technology, and Global Relations Librarian; **Sally A. Gore,** Head, Research and Scholarly Communication Services; **Andrew Creamer,** Library Intern; **Javier Crespo,** Associate Director, National Network of Libraries of Medicine, New England Region; **Elaine Russo Martin,** Director; Lamar Soutter Library, Medical School, University of Massachusetts–Worcester
Purpose: This poster focuses on the collaboration among science and medical librarians from multiple diverse New England research institutions in designing and aggregating content for an e-science portal.
Brief Description: This project is funded through a subcontract with the National Network of Libraries of Medicine, New England Region. It is based on a collaborative framework consisting of a project advisory board, an editorial board of content editors, and a web development technical team. This comprehensive portal, aimed at librarians, provides news, links to annotated e-science resources, and a discussion forum. Members of the portal editorial board include science and medical subject librarians identifying and aggregating content on e-science news and events, tutorials, and current practice accessible through the portal. Editorial librarians are developing a virtual community using social tools to foster discussion and collaboration among New England librarians interested in e-science. This poster describes the planning process and the roles of the editorial team, project coordinator, and portal design team.
Results/Outcome: The collaboration of biomedical and science subject and technology librarians is crucial to developing an e-science portal that will provide the essential tools and knowledge for librarians to effectively engage in networked science.

164

Rethinking Face to Face

Rebecca S. Graves, AHIP, Educational Services Librarian, J. Otto Lottes Health Sciences Library, University of Missouri–Columbia; **Jerry Carlson, AHIP,** Medical Librarian, Medical Library, Poudre Valley Health System, Fort Collins, CO; **Lynne M. Fox, AHIP,** Education Librarian, Health Sciences Library, University of Colorado–Denver Anschutz Medical Campus, Aurora, CO; **Claire Hamasu,** Associate Director, National Network of Libraries of Medicine, MidContinental Region, Spencer S. Eccles Health Sciences Library, University of Utah–Salt Lake City; **Mary Henning,** Librarian, Teaching and Learning Center, Laramie County Community College Albany County Campus, Laramie, WY; **Jackie Hittner,** Library Services Manager, Library, American Association of Orthodontists, St. Louis, MO; **Jeff Kuntzman,** Head, Library Information Technology, Health Sciences Library, University of Colorado–Denver Anschutz Medical Campus, Aurora, CO

Objective: In light of an increase in inexpensive conferencing software coupled with the decrease in both travel budgets and chapter members available to plan our annual meetings, the association formed a task force to analyze alternatives to our tradition of geographically rotated, locally planned, yearly, face-to-face chapter meetings.

Methods: For the purposes of our analysis:

• We reviewed the purpose of our face-to-face annual meetings. To do so, we reviewed the chapter and national bylaws as well as member comments from the preceding year's meeting.

• We searched the literature for articles on the value of conferences, both virtual and face to face.

• We surveyed chapter members about their experience with and impressions of virtual meetings and conferences.

• We examined several existing conferencing software products.

• We held a members forum at the fall 2010 association meeting for additional input.

167

A Chance to Wait Is a Chance to Educate: Playaway Media Players in the Patient Library

Carol Ann Attwood, AHIP, Medical Librarian, Patient and Health Education Library; **Kay E. Wellik, AHIP,** Medical Librarian and Director, Mayo Clinic in Arizona Libraries; Mayo Clinic in Arizona, Scottsdale, AZ

Objective: The library has made Playaways (MP3 players preloaded with relaxation meditations and music) available to patients, family members, and employees as they access care in ambulatory care. As part of a continuous practice innovation grant and with the support of the integrative medicine subcommittee, portable players with preloaded content including relaxation music and meditations were used to relieve anxiety and stress before, during, and after procedures as well as a means to assist patients to find meaningful alternatives to waiting. A secondary goal was to introduce an aging population to new technologies that would help them adapt to technology changes in their own lives.

Methods: An interdisciplinary group including physicians, librarians, educators, and administrators met together to determine modalities of virtual access, to choose specific topics that were related to stress management techniques of meditation and focused presentations, and to choose specific areas in the organization where the longest waiting periods were encountered. The pilot study was conducted from August through December to determine (1) ease of usability, (2) improvement of patient waiting experience, and (3) decrease in anxiety and stress levels of patients in waiting areas.

Results: To date more than 210 devices have been checked out. Playaway users had been given instructions on usage both verbally as well as in writing. For those with visual challenges, an enlarged information sheet was provided. Overwhelmingly, the response has been positive, has improved the visibility of the patient library, and has opened a plethora of creative ways to use the devices. Further opportunities that will be evaluated are the use of Mayo Clinic information on health and wellness, including heart health, exercise, and Mayo Clinic history, as well as the option of providing discharge instructions.

Conclusions: Because this project was so successful, other technologies will also be explored including netbook computers and iPads to share consumer health information with patients and family members.

170

Using iPads to Improve Educational Satisfaction and Clinical Care

Megan von Isenburg, AHIP, Information and Education Services Librarian; **Brandi D. Tuttle,** Information and Education Services Librarian; Medical Center Library and Archives, Duke University, Durham, NC

Objective: The purpose of this study is to improve the quality of medical education and clinical care by harnessing technologies to facilitate information gathering and clinical decision making. The project will use the iPad as a tool for improving resident, medical student, and attending physician education by facilitating easier access to clinical tools, patient care data, and patient education information.

Methods: The study involves four teams from the department of medicine at an academic medical center including attending physicians, residents, interns, and medical students. The teams will be randomized into two arms: the iPad arm and the control arm. The control arm will receive training on educational resources that are accessible on computers. Teams in the iPad arm will receive an iPad to use for eight weeks, the same training as the control arm, and training on iPad operations. All teams will be asked to complete weekly surveys on their use of educational resources or the iPad, depending on which arm they are in, as well as a final survey addressing the outcomes of interest: the ease of use and accessibility of the iPad or educational resources, and perceived improvements in individual learning, team learning, work flow, and patient care.

173

Developing an Online E-Learning Library to Support Early Career Clinical and Translational Researchers

Marisa L. Conte, Clinical and Translational Science Liaison, Taubman Health Sciences Library; **Lise Anderson,** Post-doctoral Program Designer; **Brenda Eakin,** Instructional Designer; Michigan Institute for Clinical and Health Research; University of Michigan–Ann Arbor

Objective: To identify and meet the basic information needs of early career clinical and translational researchers by building a library of customized videos and tutorials. Designed to simultaneously educate researchers and increase the profile of librarians as research partners, the videos and tutorials have also strengthened relationships between the library and campus research organizations.

Methods: This project grew from a partnership between an academic health sciences librarian and the Michigan Institute for Clinical and Health Research (MICHR), which administers the University of Michigan's Clinical and Translational Science Award (CTSA). Based on common questions to MICHR's research development unit, the librarian and instructional design

experts identified information needs of pre- and postdoctoral clinical and translational researchers. The librarian categorized the topics as information gathering, information management, citation analysis, or publication and reporting and developed content for each topic. Some topics were addressed in brief "talking head" videos: The librarian was filmed speaking informally about the topic and outlining relevant library services or resources. For more detailed topics, the librarian and instructional design experts developed a series of e-learning modules specifically targeted to early career clinical and translational researchers. The videos and tutorials are available online via MICHR's website and widely promoted

176

HIV/AIDS Health Information Outreach Service in San Diego

Naomi C. Broering, AHIP, FMLA, Dean, Libraries; **Gregory A. Chauncey,** Consumer Health Program Manager, Library; **Stacy Gomes,** Vice President, Academic Affairs; **Jack Miller,** President, Administration; Pacific College of Oriental Medicine, San Diego, CA

Description: This poster depicts the HIV/AIDS Health Information Outreach Service in San Diego, a partnership project between the Pacific College of Oriental Medicine (PCOM) Library, San Diego Public Library, First Lutheran Church, and San Diego Center lesbian, gay, bisexual, and transgendered (LGBT) community organization. The primary objectives were to bridge the HIV/AIDS information gap for health professionals, librarians, and patients and consumers from diverse ethnic and cultural backgrounds, and to provide access to those in need with the National Library of Medicine's (NLM's) free resources. Funded, in part, by a 2008 NLM contract award, the PCOM library conducted training on access to HIV/AIDS information on MedlinePlus, AIDSinfo, and Pub Med at partner facilities for their community users. Objectives were to develop instructional materials; train professionals, patients, and residents; provide health literature; and evaluate project outcomes and results. To accomplish the project, a phased methods approach was undertaken, including organizing a project team, enhancing existing library resources, adding library web page links, developing instructional modules, publicizing and scheduling workshops and computer classes in the community, conducting training, and gathering evaluation or comment survey questionnaires from participants. Multiple tasks and a time table assured timely outreach at partner sites to accommodate attendees.

Results: Specific accomplishments in this project were to establish an infrastructure at the partnering institutions for continuous access to HIV/AIDS information and to train consumers and health professionals on how to access the latest information from NLM for their needs. There were 57 workshops and presentations conducted for 1,509 participants at the partner sites. Additional sites requested workshops. Participants were excited about what they learned and submitted favorable evaluations. Why are the outcomes of this important HIV/AIDS service worthy? The service not only provided information to a growing HIV/AIDS affected population in San Diego, but nationally. The project served multicultural citizens, thereby addressing inequalities and reaching the underserved. The HIV/AIDS community has increasing information needs, which require continuing services. Overall, the final outcomes were overwhelming: The library exceeded its outreach goals; received good media coverage (TV channel, KPBS, and AARP); and demonstrated that this type of information is appreciated and needed.

179

Rethinking a Library's Training Approach for Pharmacy Preceptors

Barbara A. Wright, AHIP, Reference Services Librarian; **Shannon D. Jones, AHIP,** Associate Director, Research and Education; Tompkins-McCaw Library for the Health Sciences; **Veronica P. Shuford,** Educational Specialist, School of Pharmacy; Virginia Commonwealth University–Richmond; **Karen S. Purcell,** Executive Director; Capital Area Health Education Center, Richmond, VA

Objective: To provide prerequisite training to enable community-based pharmacy faculty preceptors to navigate and use institutional and library web-based systems, resources, and services.

Methods: Experiential education, a major component of pharmacy education, encompasses approximately one-third of our school of pharmacy's curriculum for approximately 500 students. This requires a vast number of community-based preceptors across the state and the country. In compliance with the Accreditation Council for Pharmacy Education standards, our pharmacy preceptors are provided full access—onsite and remote—to library and educational resources. A more challenging standard is the requirement to teach preceptors to use library resources and services. Being able to navigate the maze of web pages, systems, logins, etc., is a major stumbling block in accessing resources. The distribution of preceptors prohibited onsite training and instructions needed to use established web-based training modules and tutorials. Recognizing that access to the Internet and computer technology varied greatly among preceptors and their locations, it was determined that commonly available technology needed to be used. The project utilizes low-cost, easy-to-use, interactive CD-ROMs that include basic instructions, tutorials, and screencasts. School of pharmacy continuing education credit was provided.

Results: While the project is ongoing, a number of related results have been realized. The initiative necessitated clarifying and updating our library system's policies and procedures for preceptors and broadened the understanding of the important role of preceptors. The project has enhanced and promoted our collaborative relationship with the school of pharmacy and the Capital Area Health Education Center (AHEC), and most importantly, Virginia Commonwealth University's relationship with our community pharmacy preceptors. Next steps for the project are to develop web-based preceptor training solutions and explore similar applications for other health sciences programs.

182

Organizational Flattening II: Results of a Survey on Organizational Flattening in Academic Health Sciences Libraries

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Objective: The purpose of this study is to determine the current status of organizational flattening in academic health sciences libraries; analyze its impact, if any, on leadership development among middle managers; and compare results to a previous study conducted for MLA '09. The current study also assesses whether current organizational flattening has been related to economic impact during the last two years. Organizational flattening is defined as fewer managerial layers and is described in relation to hierarchical library structures. Organizational flattening in academic libraries is a relatively new structural adjustment and reflects the practices of some companies in corporate environments.

Methods: Using the 2009 survey, updated to allow for additional relevant factors, the current survey probes whether technology, budgetary considerations, or other internal factors produce organizational flattening. The authors survey library directors and middle managers on the occurrences of organizational flattening; the primary reason for flattening; the value of organizational titles and their use, relation, and impact on library structures; and whether titles have an impact on career advancement. The authors conduct interviews with select library directors to probe in depth the reasons for flattening local structures (or not) and efforts at leadership development among their staff.

Index

2011 National Program Committee..... 2

A

Abate, Laura..... 57
Abbey, Dana..... 53
Abu-Zeid, Barbara..... 15
Adams, Mararia..... 79
African American Medical Librarians Alliance SIG..... 16
Aguinaga, April..... 88
Ahmed, Makhdum..... 84
Albert, Paul..... 78
Alexander, Margaret K..... 16
Alfasso, Alexis..... 38
Allard, Rhonda J..... 19
Allee, Nancy J..... 42, 54
Allegri, Francesca..... 44
Allen, Margaret (Peg)..... 28, 58
Allison, Amy E..... 9, 15
Alpi, Kristine M..... 14, 16
Altman III, Robert J..... 79
Altman, Trina..... 86
Alt-White, Anna..... 75
Ambriz, Lorely..... 21
Ambroziak, Marta..... 38
Amick, Sarah..... 49
Amos, Kathleen..... 14, 87
Anderson, James E..... 54
Anderson, Katherine M..... 72
Anderson, Lise..... 90
Anton, Bette..... 20
Arango, Xiomara E..... 49
Ascher, Marie T..... 15, 42, 56
Attridge, Elaine M..... 86
Attwood, Carol Ann..... 90
Auten, Beth..... 22, 66
Ayton, Kieran..... 83

B

Backus, Joyce E. B..... 35
Baggett, Mark..... 45, 79
Bain, Andrew..... 6
Bandy, Margaret M..... 2, 3, 57, 73
Bang, Gail..... 50
Banks, Marcus..... 42
Barbour, Justin..... 85
Bardyn, Tania P..... 26
Barger, Renae..... 73
Bartlett, Laura..... 38
Bauer, Mary Beth..... 10
Bears, JaimeLyn..... 78
Behringer, Bruce..... 62
Belleh, Ene..... 88
Bell, Mike..... 34
Berlanstein, Debra R..... 83
Berney, Elizabeth..... 63
Berryman, Donna..... 26
Besaw, Megan E..... 36, 68
Biglow, Carolyn..... 67
Billman, Brooke..... 21
Bird, Stephanie..... 42
Birr, Rebecca A..... 88
Blecic, Deborah D..... 84
Blevins, Amy E..... 68
Boilard, David..... 34
Bolding, Mark S..... 84
Börner, Katy..... 64
Boshard, Barbara..... 67
Boss, Catherine M..... 52
Botero, Cecilia..... 22, 65
Boyd, Trenton..... 20
Bradford, Kevin D..... 9
Bradley, Patricia..... 21
Brandes, Susan..... 2
Brandys, Barbara..... 12
Breen, Elizabeth..... 4
Brennan, David..... 75
Brewer, Karen..... 12
Britton, Robert M..... 7
Broering, Naomi C..... 70, 91
Brownfield, Erica..... 44
Brown, Heather L..... 82
Brown, Janis F..... 30
Brown, Sharon..... 24
Brown, Steven W..... 50
Brucker, Jim..... 72
Bryant, Darcel A..... 85
Buckingham, Debbie..... 63
Bulger, James R..... 51
Bumgarner, Ben..... 73
Bunch, Wilma..... 73
Burford, Nancy..... 20
Burhans, Dirk..... 67, 73
Burnham, Judy F..... 61
Burns, Shelly..... 63
Burright, Mariann..... 48
Bushhousen, Ellie..... 66
Butera, Gisela..... 60
Butson, Linda C..... 22, 65, 66, 80

C

Cadena, Cara..... 37
Cagna, Robert..... 19
Camina, Susan..... 26
Cancer Librarians Section..... 9
Cantrell, Sarah..... 50
Carden, Virginia M..... 63, 69
Carlson, Jerry..... 73, 90
Carrigan, Esther..... 20
Carter, Kathleen..... 21
Carter, Rodney..... 34
Casterton, Terri..... 3
Castjohn, Dana M..... 61
Cavanaugh, Susan..... 12
Cechman, Christy..... 50
Chambers, Thane..... 18, 83
Chang, Hui-Chin..... 76, 82
Chastain-Warheit, Christine..... 88
Chatfield, Amy J..... 13
Chatterley, Trish..... 33, 83
Chattopadhyay, Ansuman..... 19, 23
Chauncey, Gregory A..... 70, 91
Chelliah, Indu..... 65
Chiesa, Cathryn W..... 63
Chisholm-Burns, Marie A..... 32
Chiu, Tzu-heng..... 58
Chojecki, Dagmara..... 33
Chuo, Yu-Tzuon..... 58
Clamon, Travis..... 81
Clanton, Clista..... 10
Clark, Lisa..... 57
Clark, Nancy..... 75
Clement, Gail..... 20
Cleveland, Ana D..... 5, 27
Clinical Librarians and Evidence-Based Health Care SIG..... 14
Coady, Teresa R..... 75
Cody, Dean E..... 69
Coffey, Jennifer R. S..... 64
Coffman, Michael A..... 17
Cogdill, Keith..... 21, 34
Coghill, Jeff..... 44
Collection Development Section..... 13, 33
Colombo, Paul..... 81
Comegys, Marianne..... 10
Complementary and Alternative Medicine SIG..... 3, 4, 28
Conlon, Mike..... 64
Connick, Kathleen..... 50
Consumer and Patient Health Information Section..... 2, 3, 9, 28
Conte, Marisa L..... 24, 27, 53, 54, 90
Cook, Nakia..... 36, 43, 62, 81
Cooper, I. Diane..... 8
Coppernoll-Blach, Penny..... 16
Corporate Information Services Section..... 3, 9, 22, 31, 33
Cotter, Kerry..... 38
Crawford, Anna Katherine..... 39
Creamer, Andrew..... 89
Crescenzi, Anita..... 88
Crespo, Javier..... 35, 89
Croft, Vicki F..... 14
Crook, Linda C. K..... 47
Crummett, Courtney..... 8
Cruse, Peggy..... 58
Cryer, Emma..... 13, 23, 69
Cunningham, Diana J..... 15, 38, 56
Curran, Megan..... 7
Curtis, Jim..... 2
Czechowski, Leslie J..... 13, 47

D

Dahlen, Karen..... 35
Davies, Karen..... 6
Davis, Letrice..... 24
Davis, Megan..... 49
Deckert, James J..... 4
Degener, Christie..... 23
De Groote, Sandra L..... 48, 84
Delgado, Diana..... 78
Delia, Catherine E..... 34
Delwiche, Frances..... 58, 87
Dental Section..... 2
De Santis, Melissa..... 67

Detlefsen, Ellen G. 5
Devine, Patricia J. 54
Dexter, Nadine 34
Dimoulas, Steve T. 65
DiStefano, Thomas 71
Dobbins, Montie' 79
Dockery, Jack M. 61
Dodd, Adam 2
Dorris, C. Scott 50
Dorsey, Mary Jo 29
Douglas, C. Steven 85
Drachman, David 88
Drass, Joy C. 67
Dudden, Rosalind F. 57, 73
Duesing, Ann 70
Duggan, Heidi M. Nickisch 48, 91
Duhon, Lucy 43
Dunn, Kathel 12
Dupin, Kate 86
DuRussel-Weston, Jean 37
Dutcher, Gale A. 28, 38

E

Eakin, Brenda 90
Easterby-Gannett, Sharon 12, 88
Educational Media and Technologies Section 4, 13, 18, 29, 35
Edwards, Mary 22
Elkharwily, Wanda 30
El-Khayat, Yamila 21
Ellero, Nadine P. 69
Engeszer, Robert J. 79
Ennis, Lisa A. 84
Epstein, Helen-Ann B. 19, 47, 78
Eresuma, Emily 73
Esparza, Julia 9, 10, 41
Estrada, Rosario 71
Ewing, Sidney A. 20

F

Faltinek, Amy 54
Farrell, Ann 30
Farson, Ron 75
Feddern-Bekcan, Tanya 51
Federal Libraries Section 11, 30
Fell, Dennis W. 61
Ferree, Nita 22, 64, 66, 80
Fine, Elizabeth V. 25
Fitzgerald, Phillip 86
Fitzgerald, Stephanie E. V. 78
Fitzpatrick, Roberta Bronson 71
Flanzraich, Gerri 77
Fletcher, Adelaide M. 53
Florance, Valerie 34
Folb, Barbara L. 13
Fox, Lynne M. 90
Franklin, Sandra G. 15
Frisque, Michelle 72
Fulton, Stephanie 42

G

Gaines, Steven 77
Gajic-Zoric, Vladana 30
Garcia-Milian, Rolando 22, 66
Gebb, Billie Anne 70
Gerberi, Dana 30, 62
Getselman, Anna 9, 15, 44
Ghansah, Grace 62
Gilbert, Suzanne S. 21
Gillispie, Mary Alice 28
Giuse, Nunzia B. 10, 32
Glassman, Nancy R. 41
Gleason, Ann 56
Goldstein, Mark 3, 59
Gomes, Alexandra 57, 60
Gomes, Stacy 91
Goode, Victoria H. 75
Gordon, Carol 89
Gore, Sally A. 39, 89
Graham, Jamie M. 18
Granath, Kim 37
Granitz, Adrienne D. 44
Graves, Rebecca S. 19, 90
Greenberg, Charles J. 5, 22, 57
Greenley, Sarah L. 32
Grigg, Karen S. 13, 23, 63
Gross, Peggy 23, 73

H

Habousha, Racheline G. 41
Hahn, Trudi Bellardo 48
Haley, Heather-Lyn 11
Hall, Elizabeth Palena 57
Hallerberg, Gretchen 23
Halling, Derek 20
Halling, Thomas D. 68
Hamasu, Claire 15, 90
Hamel, Barbara 17
Hanley, Scott 20
Hanson, Karen L. 18
Hao, En-Li 76, 82
Hardee, Susan P. 44
Hargwood, Pam 52
Harris, Bethany 42
Harris, Ryan 41, 83
Harrod, Tom 60
Hartman, Linda M. 7, 17
Hartmann, Katherine 32
Hawthorne, Dottie 62, 76
Health Association Libraries Section 2, 31, 34
Hebert, Rhea M. 16
Heekin, Janet 12, 34
Heilemann, Heidi A. 3
Henderson, Cynthia L. 49
Henderson, Margaret E. 87
Hendler, Gail Y. 78
Hendrix, Dean 25, 38
Henning, Mary 90
Henning, Sara 64
Henry, Barbara 88
Henry, Marcia K. 61
Henry, Nancy I. 6
Hernandez, Felix 78
Herrier, Richard N. 32
Higginbottom, Patricia C. 37
Hill, Nathan 45
History of the Health Sciences Section 4, 19, 22
Hittner, Jackie 90
Holmes, Kristi L. 26, 27, 59, 60, 63
Holst, Ruth 86
Holyoke, Assako N. 4
Hopkins, Mark E. 17
Horne, Andrea S. 44, 69
Hospital Libraries Section 3, 22, 29
Hubenschmidt, Holly 62
Huber, Jeffrey 86
Hunter, Sue 12
Hunt, Steve 72
Hurst, Emily J. 13
Husted, Jeffrey 47

I

Institutional Animal Care and Use SIG 9, 16, 22, 26, 31
International Cooperation Section 20
Iskander, John 50
Iwema, Carrie L. 19, 23, 42

J

James, Mary Ann 14
Jameson, Jodi 43
Jerome, Rebecca 32
Jesano, Rae 66
Johnson, Rachel 73
Johnson, Rienne 31, 68
Jones, Barbara 73
Jones, Dee 62, 81
Jones, Dixie A. 79
Jones, Mary E. 49
Jones, Shannon D. 6, 9, 42, 91
Joyce, Mary K. 60
Judkins, Dolores Z. 82
Justice, Ellen 88

K

Kafel, Donna 81, 89
Karadjova, Katia G. 24
Kaste, Ann 82
Kathryn Summey 80
Kean, Emily 86
Keenan, Emily 64
Kelley, Rhona 89
Kelly, Betsy 15
Kendall, Susan K. 22
Kenefick, Colleen M. 77
Kennedy, Joy 58
Keselman, Alla 16
Ketchum, Andrea 7
Ketterman, Elizabeth 36
Kilham, Jessica 46
Kincy, Chamya P. 85
King, James 31
King, Miriam L. 40
King, Samuel B. 80
Kirkpatrick, Brett 21
Klem, Mary Lou 12

Kooy, Jennifer 39
Kotzer, Anne Marie 40
Kovach, Fran 89
Kraft, Michelle 23
Kramer, Sandra S. 4, 32
Kuntzman, Jeff 90

L

Ladd, Dana L. 49
LaDue, John 33
Lake, Erica 73
Lalla, Nadia J. 20
Landreth, Barbara 50
Lapidow, Amy R. 78
Lapidus, Mariana 80
Lapinski, P. Scott 4
Laposata, Michael 10
Larsen, Karen 30, 62
Lauseng, Deborah L. 54
Layton, Beth 31, 68
Leadership and Management Section 3, 9, 22, 33
Le Ber, Jeanne Marie 42, 85
Lee, Florence 73
Lee, Jeannie K. 32
Lee, Sharon 24, 36
Leger-Hornby, Tracey 81
Lesbian, Gay, Bisexual, and Transgendered Health Science Librarians SIG 16, 29, 34
Leskovec, Jacqueline 86
Lett, Rosalind K. 73
Levin, Leonard 11
Lewis, Michelle 57
Libraries in Curriculum SIG 4, 18, 24
Library Marketing SIG 3, 6, 9, 11, 14, 22, 30
Li, Jie 7
Linares, Brenda M. 16
Lin, Long-Yau 76, 82
Livinski, Alicia A. 45
Loftus, Wayne 29, 69
Lombardo, Nancy T. 42, 85
Loper, Kimberly 51
Lorbeer, Elizabeth R. 84
Lori, Jody R. 25
Lubker, Irene M. 87
Lynn, Valerie A. 6
Lyon, Jennifer A. 22, 66, 80
Lyons, Tierney 18

M

MacEachern, Mark 53, 54
Ma, Chunwei 52
Mack, Thelma 6
Maher, Stephen 18
Main, Lindsey R. 88
Manuelito, Brenda 38
Marshall, Joanne Gard 5, 12
Martin, Elaine Russo 35, 81, 89
Martin, Jennifer R. 4, 32
Massengale, Lisa 16
Mattis, Patrick 71
Mayman, Gillian 44
Mazure, Emily 6
McCrillis, Aileen 18, 66
McDaniel, Jennifer 6
McDuffee, Diana 44
McGowan, Bethany S. 67
McGowan, Richard 18
McGraw, Kathleen 88
McGuire, Lisa A. 85
McKay, Rebecca 68
McKnight, Michelynn 5
McKone, Mark 44
McKoy, J. Nikki 32
McLaughlin, Patrick 52
McLendon, Wallace 13
McPheeters, Melissa 32
Medical Informatics Section 2, 5, 13, 35
Medical Library Education Section 4, 5, 9, 23, 24, 31
Merlo, Loretta 78
Merrick, Cybele M. 63
Miles, Samantha B. 79
Miller, Jack 70, 91
Minuti, Aurelia 41
Mitchell, Nicole 37, 62
Moberly, Heather K. 14, 17, 20
Mody, Gita 4
Moeller, Kathy 80
Mohiuddin, Afsar 56
Molecular Biology and Genomics SIG 3, 9, 16, 26
Mongelia, Pattie 78
Moody, David 69
Moore, Dorothy 29
Morales, Myrna E. 89
Morelos, Cassandra 65
Morgan, Lynn Kasner 12
Morton-Owens, Emily G. 18, 29
Mower, Allyson 14
Munjuluri, Sarat 84
Murphy, Beverly A. 63
Murphy, Collin 78

N

Nadkarni, Mohan 65
Nail-Chiwetalu, Barbara 21
Najafi, Siamak 81
Nault, Andre J. 51
Near, Kelly 65
Nemeth, John 9
Newman, Michael L. 12
New Members SIG 2, 6, 9, 23
Nicholson, Joey 24, 40
Nordberg, Judy 11
Norris, Nathan 64
Norton, Hannah F. 22, 63, 65, 66
Norton, Melanie J. 44
Nunez, Annabelle 21
Nursing and Allied Health Resources Section 2, 13, 28
Nwafor-Orizu, Ejeagwu O. 75

O

Oberg, Lisa 72
O'Brien, Diane 60
Obrig, Kathe 50
OCLC SIG 7
O'Connor, Stacy 77
O'Dwyer, Linda 72
Ogawa, Rikke S. 59
O'Hagan, Emma 37
O'Hagan, Keydi Boss 76
Oliver, John T. 52
Oliver, Kathleen (Kate) Burr 12
O'Malley, Donna 87
Oren, Gale A. 65
O'Rourke, Kerry 77
Osteopathic Libraries SIG 5, 14
Osterhaus, Leah 30
Ottaviani, Jim 61
Outreach SIG 4, 28

P

Page, Jessica R. 14, 17
Palmer, Lisa A. 39
Pantell, Ayumi K. 59
Parent, Sarah J. 78
Parker, Kathy S. 12
Parker-Kelly, Darlene 49
Patterson, Ramona 78
Paulaitis, Gediminas (Geddy) 71
Pellegrino, Jane A. 12
Peterson, Jonna 39
Peterson, Richard A. 13, 44, 63, 83
Pharmacy and Drug Information Section 9, 16, 22, 26, 34
Philbrick, Jodi L. 27, 42, 89
Pickens, Noralyn 63
Pierce, Janette (Jenny) 52
Piorun, Mary E. 81
Poletti, Edward J. 11
Ponnappa, Biddanda (Suresh) 43
Poole, Connie 89
Popovic, Tanja 50
Potter, Ann Russell 12
Prevost, Jeremy 72
Priefer, Beverly 75
Prokop, Larry 76
Public Health/Health Administration Section 9, 20, 34
Public Services Section 14, 22
Pullen, Kimberly 45
Purcell, Karen S. 91
Puri, Aditi 80

Q

Qiu, Kefeng (Maylene) 43

R

Rafferty, Ryan 66, 71
Ragon, Bart 13, 44, 69
Ramsey, Ellen 86
Rana, Gurpreet K. 25
Rankin, Jocelyn A. 50
Raszewski, Rebecca 39, 48
Ratajeski, Melissa 33

Reed, Robyn B. ... 23
Regenberg, Patricia B. ... 60
Relevant Issues Section ... 16
Repp, Amber ... 31, 68
Research Section ... 5, 14, 23
Resnick, Taryn ... 26
Rethlefsen, Melissa L. ... 30, 76
Reyna, Graciela ... 21
Reynolds, John ... 51
Rich, Joanne ... 56
Rieke, Judith L. ... 38
Robertelli, Darlene ... 52
Robertson, Justin C. ... 7
Robinson, Cynthia K. ... 33
Robinson-Paquette, Mindy ... 42
Rodriguez, Carmella ... 38
Romanosky, Neil ... 12
Ronan, Linda ... 39
Rosario, Jovy-Anne ... 38, 56
Rosenzweig, Merle ... 42, 61, 80
Ruddock, Rebecca ... 34
Russell, Roger ... 68
Ryan, Jeanette ... 21
Ryan, Mary E. ... 12

S

Saba, Christine ... 64
Saimbert, Marie K. ... 52, 71
Saleh, Ahlam ... 33
Salib, Maryann ... 73
Sarli, Cathy C. ... 26, 59, 79
Satterthwaite, Rebecca ... 50
Saylor, Kate ... 45
Schaefer, Nancy ... 40
Schell, Mary Beth ... 2, 44
Scherrer, Carol ... 39
Schnall, Janet G. ... 56
Schneider, Lisa ... 37
Schnell, Eric ... 13
Schnitzer, Anna E. ... 61, 80
Schoening, Paul A. ... 79
Schroeder, Heidi M. ... 77
Schultz, John ... 76
Schwartz, Rachel ... 41
Scott, John C. ... 28
Scott, Pamela ... 12
Scoville, Caryn M. ... 67
Section Council ... 6, 24, 35
Severson, Eileen A. ... 64
Sharkady, Steve ... 73
Sharma, Amit ... 73
Shearer, Barbara ... 34
Shedlock, James ... 46, 91
Sherwill-Navarro, Pamela ... 58
Shields, Tracy C ... 10
Shipley, Jennifer ... 71
Shipley, Michele ... 26
Shuford, Veronica P. ... 91
Shultz, Mary ... 66
Shurtz, Suzanne ... 68
Sievert, MaryEllen C. ... 67, 73
Sieving, Pamela C. ... 20
Simonson, Marian ... 23
Slack, Marion K. ... 4, 32
Slocomb, Mary Ann ... 83
Smethurst, Rie ... 38
Smith, Jena A. ... 61
Smith, Judith ... 30, 86
Smith, Karen G. ... 8
Smith, Lisa ... 57
Smith, Susan C. ... 37
Sollenberger, Julia F. ... 12, 26, 34
Solomon, Meredith I. ... 56
Song, Jean ... 53
Son, Inhye Kim ... 69
Sorensen, Karen ... 41
Spivey, Christina A. ... 32
St. Anna, Leilani A. ... 56
Stephenson, Priscilla L. ... 11, 75
Stewart, David C. ... 3
Stoddart, Joan M. ... 7
Strausman, Jeanne ... 77
Sullivan, Brigit S. ... 45
Sullo, Elaine ... 60
Summey, Kathryn ... 80
Surette, Soleil ... 83
Suther, Thomas ... 76
Sutton, Sarah ... 37
Swain, Robert ... 50
Swanson Jr., Joe ... 49
Syperda, Virginia ... 73

T

Tarver, Talicia ... 79
Tatro, Anna L. ... 41, 56
Tawzer, Tiffany ... 78
Taylor, Mary Virginia ... 12
Technical Services Section ... 7, 13
Tehrani, Mahnaz ... 77
Tennant, Michele R. ... 22, 60, 63, 65, 66
Terry, Nancy ... 12
Thao, MeLee ... 28
Theis-Mahon, Nicole ... 46
Theroux, Melissa ... 78
Thibodeau, Patricia L. ... 69
Thomas, Deidre ... 50
Thompson, Cheryl A. ... 12
Tooey, M. J. ... 41
Townsend, Whitney A. ... 30, 53, 54, 86
Traditi, Lisa K. ... 9, 67
Trumble, Julie ... 21
Tsai, Chung-Hung ... 76, 82
Tucker, Michael ... 36
Turnbow, Dominique ... 16
Turner, Alicia ... 64
Tuttle, Brandi D. ... 46, 90
Tuzman, Gail Reiken ... 71

V

Vaidhyanathan, Vedana ... 51
Vandenbark, Todd ... 42, 43
Vander Hart, Robert ... 89
Vardell, Emily J. ... 21, 51, 71
Veterinary Medical Libraries Section ... 16, 22, 26, 33
Vieira, Dorice ... 18
Vines, Hattie H. ... 63, 83
VIVO Collaboration ... 64
Volk, Ruti ... 35, 37
von Isenburg, Megan ... 90
Vrabel, Mark ... 45
Vreeland, Carol E. ... 16
Vucovich, Lee A. ... 37

W

Walden, Rachel ... 32
Wallace, Ramona ... 75
Wallace, Rick ... 36, 43, 62, 81
Wang, Lei ... 57
Ward, Deborah H. ... 67, 73
Warlick, Stefanie ... 18
Washabau, Robert J. ... 51
Weaver, Debbie ... 40
Weber, Alice ... 14
Weinstein, Judith ... 28
Wellik, Kay E. ... 90
Wells, Karen K. ... 2
Welmaker, Roland B. ... 49
Wentz, Mark ... 76
Werner, Susan E. ... 77
Wessel, Charles B. ... 13
Whalen, Kimberly J. ... 31
Wheeler, Terrie R. ... 11, 30, 31
Whelan, Julia ... 4
White, Mia S. ... 44
White-Olson, Anne ... 12
Willett, Judy ... 81
Williams, Annette M. ... 10
Willis, Christine A. ... 48
Wilson, Daniel T. ... 44, 86
Wilson, Terry N. ... 72
Woelfl, Nancy N. ... 11
Wood, Michael A. ... 85
Wood, Richard ... 34
Woodson, Deidra ... 45, 62, 81
Woody, Lorelei ... 44, 54
Workman, T. Elizabeth ... 7
Wright, Andrea L. ... 7
Wright, Barbara A. ... 87, 91
Wu, Jin ... 30
Wu, Lin ... 78

Y

Yacobucci, Karen ... 18
Yaffe, Joanne ... 14
Yang, Peter ... 28
Yeh, Sheila ... 58
Youngen, Gregory K. ... 17
Youngkin, Mary E. ... 14
Young, Kristen ... 53
Young, Zach ... 70, 86

Z

Zeblisky, Kathy ... 88
Zhang, Yingting ... 77

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