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Hypothesis

The Journal of the Research Section of MLA



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Cover art (from the *Images from the History of Medicine* database by the National Library of Medicine):

Interior view of a library through a garlanded opening; a man has received assistance in retrieving a book, he stands holding the open book before him; another man is standing next to a ladder that is leaning against the shelves. Lugduni Batavorum: Gisbertum Langerak, 1734.

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AN INVITATION TO SHARE YOUR RESEARCH

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A new feature entitled *Short Articles* will soon debut in *Hypothesis*. Its purpose is to provide health sciences librarians and students a convenient and friendly way to publish their research projects.

Short Articles will highlight new, interesting projects and practices in the field of medical librarianship. It will provide a place to submit work where the *Hypothesis* editorial board members may offer suggestions and refinements to help a librarian or library student go further with their work, and perhaps publish later in a larger-circulation journal. This feature will be a safe environment for you to write and work with mentors to build your experience and skills.

What exactly is a *Short Article* in *Hypothesis*? For *Hypothesis*, our *Short Article* is like an extended abstract. First, let's look at the standard abstract.

Standard Abstract

We are all familiar the standard structured abstract. It's required in submitting a proposal to present a paper or poster at the annual MLA conference and most of us have written one at one time or another. In its basic form, structured abstracts outline a researcher's study and subsequent paper, and includes these sections: Objective; Methods; Results; and Conclusions.

The structured abstract is often under 300 words total and is used as a tool to help a reader decide if they want to read the entire article, to help the reader remember the main points of the article. In the case of the MLA Annual Conference, it is used by paper and poster reviewers for acceptance to present at MLA. A structured abstract can also be said to be the summary of the written article.

Short Articles are like *extended* abstracts. So, how does an extended abstract differ from a traditional abstract? Well, it is not just a longer abstract.

Extended Abstract = *Short Article in Hypothesis*

The *Hypothesis Short Article* will be usually about 4-5 typed pages in length, double-spaced, usually less than 1500 words, and will contain many details found in a full length article. A *Short Article* will define the problem that the research is addressing along with methods and (preliminary) outcomes from the research. It will have a brief description of the methodology used, results, and conclusions. It is shorter than a full length paper and some description might be omitted such as future work or research needed; in-depth details of implementations or ramifications not relevant to the key ideas of the abstract. The format of a *Short Article* includes an Introduction; Main body of text (including methods, results, discussion, and a summary section); References; Key words.

How Will This New Feature Work?

All MLA members will be invited to write a *Short Article* on their library projects or research, and on projects they presented at MLA either as posters or paper sessions. Two *Hypothesis* Editorial Board members will review the submissions and offer suggestions to the author for improvement if necessary. If the manuscript is accepted, it will be published in the *Hypothesis*. The editorial board members may continue to serve as mentors to the writers to help them publish their work as a full length manuscript to a large circulation professional journal.

Purpose of this New Feature?

Many paper and poster presentations at MLA's annual meetings stop there. It would be of value to have some of these presentations published for a wider audience (*Hypothesis* articles are indexed in CINAHL). Even projects that are not presented may have value when presented to *Hypothesis* readers, who are librarians interested in research in libraries.

AN INVITATION, continued

This new feature will also encourage students interested in health sciences librarianship who may want more experience in writing a manuscript or who have material that they think does not qualify for a

full length article in a large circulation journal. We think this new feature will help us move forward to extend our foundation of evidence based practice in health sciences librarianship.

INVENTORY OF RESEARCH QUESTIONS IDENTIFIED BY THE 2011 MLA RESEARCH AGENDA DELPHI STUDY

MLA Research Section Research Agenda Committee

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The 2007 MLA Research Policy, “The Research Imperative,” called for concrete initiatives to conduct applied research and apply those results into library practice. The full policy document, which can be found at: <http://www.mlanet.org/research/policy> [1], includes an action plan with two specific recommendations:

- MLA will ask the MLA Research Section to create a forum for identifying research priorities in the field.
- MLA will ask the Research Section to recommend annually to the MLA Board of Directors an MLA Research Agenda that suggests research topics of highest priority to the Association.

The MLA Research Section Executive Committee, at the request of the MLA Board of Directors, charged the Research Agenda Committee to implement these two Policy recommendations. The Committee first conducted a Delphi study to elicit the “most important and answerable questions facing

our profession” by inviting all MLA elected or appointed leaders and MLA Research Section members to participate during 2008. The methodology and the top-ranked 12 research questions were published in July 2009 in *JMLA* [2]. The full list of questions generated by the Delphi study appeared in the Summer 2008 issue of *Hypothesis* [3]. The MLA Board of Directors in consultation with the MLA Research Section Executive Committee determined that in 2011 the Research Agenda Committee should conduct a new Delphi study to identify the most important and answerable research questions. The 2011 study report appears in the July 2012 issue of *JMLA* [4].

The MLA Research Section’s Research Agenda Committee archived the full set of de-identified list of 140 questions generated by MLA leaders in the first phase of the Delphi study. The authors of this article obtained this archive. The authors analyzed and classified these 140 questions.

INVENTORY OF RESEARCH QUESTIONS, continued

This article in *Hypothesis* discusses (1) the classification of research questions, (2) lists all 140 questions submitted during the initial phase of the Delphi study, and (3) offers an analysis of the original, semi-finalist, and finalist questions emerging from this Delphi study. Researchers reading this article will take special interest in the full listing.

CLASSIFICATION

The 2008 responses were classified by primary topical domains whose subject topics and definitions were adapted from articles by Koufogiannakis, Slater, Crumley E [5] and Crumley and Koufogiannakis [6]. These domains were assigned to the 62 received questions to gather like topics together and to identify similarly worded questions. The 2008 topics with their definitions included:

Collections: The building of high-quality collections (print and electronic) that are useful, cost-effective, and meet the needs of users.

User Education: Teaching methods, strategies to educate users about literary resources and how to improve their research skills.

LIS Education: (changed to Professional Issues in 2011) Professional education of librarians, including continuing education and credentialing programs.

Information Access & Retrieval: Creating information systems and methods for improved information access and retrieval.

Reference / Enquiries: Providing public services and access that meet the needs of the library's users.

Management: Managing people, services, and resources within an organization.

Marketing & Promotion: Promotion of the profession, the library and its services to both users and non-users.

Professional Issues: Exploring issues that affect librarianship as a profession.

The Research Agenda Committee's 2011 process involved further adaptations to this classification system in response to the types and the volumes of questions in each type category:

Collection: Either hard copy or digital, resources, library space.

Education of Users: Of medical students, physicians, and other library patrons.

Information access: Relating to information seeking behavior, resources, and social networking.

Outcomes/Impact: Effect of librarian services on patient, health outcomes.

Professional issues: Education of librarians, roles in the institution, skills needed, and compensation.

Value: The worth of librarian/library contributions made to the quality of educational, clinical, or research outcomes at their present institution.

The 62 submitted questions in 2008 primarily asked how to improve the provision of services, resources, and beneficial instruction. As this analysis reveals, many of the 140 submitted questions in 2011 noticeably reflected the anxiety of a downturned economy. Although the topics of Collections, Education, and Information Access still remained important, there was a new emphasis on the direct Outcomes/Impact of librarian services on patient and health outcomes as well as the Value or worth (return on investment) of the librarian's/library's services to the institution.

FULL LIST OF QUESTIONS

This section lists the research questions that were posed by the 140 of the 581 elected or appointed MLA leader invitees who participated in Phase One of the 2011 Research Agenda Delphi study. The MLA Research Agenda Committee listed these questions alphabetically by subject domains that are further arranged to place questions on similar topics together and to identify similarly worded questions. To aid in the analysis the authors have italicized the 35 Semifinalist questions while listing the 15 Finalist questions in bold font.

INVENTORY OF RESEARCH QUESTIONS, continued

Collections: either hard copy or digital, resources/services, library space.

Education of Users: education of medical students, physicians, and other library patrons.

- 11 *What are the overall ramifications of e-only collections to the future of libraries? Are we surrendering our collections for the convenience of e-storage?*
- 34 *How to deal with the move from print to electronic resources and remain viable and in the management of health information.*
- 64 *Service vs. collections and space. If there is no space and limited collections, what and how should services be offered?*
- 81 *The most important research question facing the medical library profession is the transfer of information from print to digital. This would include issues of copyright, open access, metadata, licensing, and library space/storage, etc.*
- 89 *Is a physical library space really necessary or is an electronic collection sufficient with only enough staff to process access and provide educational programs?*
- 108 *How do we create sustainable electronic collections when ongoing cost, platform fees, and sometimes the sustainability of content is beyond our control?*
- 115 *How does the emergence of the "digital" or "virtual" library effect the "physical" library in terms of facilities, resources, and services?*
- 119 *How can librarians best organize and link patrons to the growing body of electronic "gray literature" in the health and research sciences? Many of these resources are classifiable in an intuitive manner, but others are less clear – a Web site that replaces a previously-published directory, technical manuscripts that appear on institutions' Web sites annually, working papers and drafts from committees.*
- 90 *Are the core competencies being taught in library schools across the country that will enable new medical librarians to perform quality searches, apply assessment methodologies, organizational principles and leadership functions in the workforce?*
- 12 *How can health sciences librarians make sure they provide the best possible research instruction to undergraduate and graduate online and distance nursing students without having the ability of face-to-face consultations?*
- 58 **What are the most effective instructional methods for teaching informatics/knowledge management/EBP within health sciences curricula?**
- 76 **How do we provide information support in a clinical world that functions based on electronic medical records systems and other similar informatics platforms and tools? What is the library's role, if any, in providing preclinical education with respect to informatics applications like electronic medical records systems?**
- 92 *What is the most effective method of teaching nursing students to be information literate?*
- 111 *Does librarian instruction in evidence based medicine question formation, searching, and critical appraisal during undergraduate or graduate medical education result in a clinician who incorporates high quality evidence into their practice?*
- 117 *As librarians play an increasingly important role in educating users, how effective is our library instruction?*
- 127 *How effective are asynchronous, voluntary online instructional materials such as help sheets, video tutorials and online classes?*

INVENTORY OF RESEARCH QUESTIONS, continued

Information Access: relating to information seeking behavior, resources, social networking.

- 3 *How are the social web and other advances in information and communication technologies impacting the work of health information professionals—from altering how information is found, organized, used, and shared to expanding opportunities for communication and collaboration and changing user expectations for information sources and quality—and what are best practices in this changing environment?*
- 7 What are the most important information seeking behaviors of health science laboratory and community researchers?
- 10 Does library/informatics training result in trainees then becoming more likely to engage in information-seeking behavior?
- 23 In medical schools where librarians are included in the curriculum, do the students have a greater degree of information literacy than students in schools where librarians are not part of the curriculum?**
- 25 *What type of information is the most sought after by healthcare professionals and how can (and do) medical librarians demonstrate their value in providing this information to stakeholders in the medical profession?*
- 41 How to find resources easy to use and accurate enough for patrons can find the information they need on their own.
- 43 Does the intervention/instruction/assistance of a professional medical librarian have a long term impact on the information seeking behaviors of health care professionals?**
- 47 Developing a universal rubric that evaluates information seeking behavior in health sciences education.
- 53 What are the information needs of practicing physicians and other health care workers? The 1985 Covell article is still heavily cited but was published way back in 1985. The information environment has changed dramatically. We need to update that study in lite of new educational strategies, resources, technology and social networks.**
- 63 *How can libraries help to reduce the inequalities in access to information experienced by health care practitioners, especially in rural and community practice settings with no affiliation to an institutional library, so that all can practice in an evidence-based manner.*
- 70 *Can we determine whether a focus on providing access to resources (databases, journals, books, articles), or on services (search help, instruction, information management) will best serve our users and keep us relevant to them?*
- 80 How can we update metrics of success to account for the Web?
- 96 How are medical librarians incorporating and assimilating social networking tools and products to provide reference services?
- 101 Is there a direct correlation between the use of “information prescriptions” and patients’ retrieval of high-quality consumer health information, and if so, how can librarians best train health professionals to consistently utilize information prescriptions?
- 131 What skills and knowledge must librarians possess in order to be able to design tools to help researchers visualize, mine, and otherwise manage large and complex data gathered during both quantitative and qualitative research?**

Outcomes/Impact: Effect of librarian services on patient, health outcomes.

- 6 Do health sciences libraries and librarians have any measureable (statistically significant) positive impacts on consumer health, the outcomes of medical care, the productivity of biomedical researchers and the knowledge obtained by graduates of biomedical and health sciences training programs, and at what total cost?**
- 13 I would be interested in find out how effective classes on database usage such as PubMed, MedlinePlus etc are for medical students once they enter the profession. Do they still rely on library assistance? Do they recall any of the search advice? Do they pay attention in any of the classes anyway?

INVENTORY OF RESEARCH QUESTIONS, continued

- 14 **Does what we do matter? Longer form: Do the resources we provide—materials, reference services, and educational offerings—make a difference to our customers—save lives, shorten length of stay, improved educational outcomes, increase research dollars, improve research results?**
- 15 Is there a correlation between patients/consumers improved health results and their ability to have access to quality health information?
- 19 Librarians who provide evidence-based practice training/education and provide e-resources to support EBP: What are effects? i.e., does this training improve patient care? result in less cost to hospital? was treatment of patient changed? how many treated with evidence-based approach? Can be more specific to types of health professionals - particularly interested in nursing population.
- 20 Measuring the impact and value of medical library professionals on the success of health professionals, life scientists, their organizations, and the public.
- 22 Medical Librarians have assumed responsibility for teaching EBM, both in stand-alone classes and integrated into COM Curriculums. At the same time Medical Education is moving towards a competency based model of education. We assume that our role as educators is important and adds value to the student experience and that student exposure to EBM will change their behavior when in practice. Does EBM/Information Literacy training change physician behavior when in practice? Does it impact patient outcomes? If clinical faculty is not modeling EBM in practice, will students still adopt these behaviors when they move into practice? Will requiring a demonstrated competency change their behavior?
- 30 What if we aren't there at all? If our institutions contract out library services, does it make a difference in patient outcomes, patient safety, and money? What has been the outcome of the Air Force experiment? I think I know the answer, but am I right? How can I demonstrate it in a manner that the bean counters can get?
- 35 What impact do health sciences libraries make on clinical outcomes?
- 37 How do medical librarians impact patient care and do they save hospitals money by educating employees to provide better care that lead to shorter length of stays, fewer readmissions, more complicated procedures preformed (leads to high reimbursement), more grants funded, fewer lawsuits, etc?
- 46 **As a profession, how do we measure our impact in our environment—be it clinical or academic—in such a way that it influences the decision makers in our institutions? [I "stole" this from the previous study, but I think that it is still the most important question facing us.]**
- 49 How do contributions from the librarian affect patient outcomes? This question could be expanded to include library resources. There have been studies on how library resources have affected provider decision making, patient stay. Can we make a more direct link between outcomes and the librarian's intervention?
- 59 How do library services, resources and staff affect measurable research outcomes (grant funding, citation analysis, student learning)?
- 61 Is there a correlation between provider access to evidence-based decision tools at the point of care and patient outcomes?
- 65 How can information (provided through libraries) impact health?
- 68 Do Medical Library services affect patient outcomes? (perhaps not stated perfectly, but it's the only thing that will matter to our administrators in the future.)
- 69 How do we demonstrate the impact of librarian services on the outcomes of the institutions/organizations they serve (e.g. impact of librarian services on hospital outcomes or impact of librarian services on faculty research outcomes)?
- 71 *What is the evidence that libraries and information services improve health outcomes for patients?*

INVENTORY OF RESEARCH QUESTIONS, continued

- 74 How much of an impact does a clinical library have on patient safety and quality of care? Can rates for facilities with a medical library be compared with rates post closure with validity (or are there too many variables?) I would think that if this can be done and presented well to appropriate organizations and leaders, it would reduce number of hospital library closures.
- 84 *How to develop a generic evaluation protocol for measuring the impact of library services and resources on the work of their user community. There are most likely general questions that could be applied across the many types of medical librarianship; however, there is also a very significant need for evaluating specific types of medical librarianship (e.g., informationists, liaisons, clinical librarians, etc).*
- 87 **What is the added value libraries bring to education, research, and patient care in the health sciences and health care fields? Even if it is not possible to quantify benefits, documenting qualitative research results rigorous enough to stand the scrutiny of administrators and researchers would be of great value.**
- 93 Do health care providers with a high level of information management competency provide a higher level of medical care with a measurable impact on patient outcomes?
- 98 *Is there a correlation between quality of health care provided by physicians who have access to a health sciences library/librarian compared to those who do not have access?*
- 102 What is the impact of services provided by health science librarians on health services outcomes, broadly defined?
- 105 What changes can be made to medical education to improve health outcomes?
- 106 **There are still a number of relevant questions from the 2008 research agenda, but to me this is most critical: "What is the quantifiable evidence that the presence of a librarian, not just information resources, improves patient outcomes, increases research dollars, improves student outcomes (e.g., better board scores), or increases hospital intelligence (e.g., if the top hospitals have access to hospital librarians/libraries)?"**
- 110 Do the services we provide to our users (reference, consultations, instruction) help them? How often does our help make a difference for the better or worse (e.g. time wasted). What is the nature of the benefit or cost?
- 112 Does the availability of a librarian to clinicians and patients make a difference in patient outcomes?
- 118 Does the information provided by health sciences librarians in response to clinical questions positively affect patient outcomes?
- 121 **How best to objectively document library/librarian impact on the 'bottom line' (time, money saved, shorter length of stay, ROI for expensive electronic resources, support training programs/Magnet status, funded research support, etc.)?**
- 122 Does modern medical library practice have a measurable effect on either the practice of healthcare by providers or the health outcomes of health care consumers?
- 124 Impact-library (esp. hospital) closures, mergers, downsizing - 1) impact on users (clienteles' satisfaction with resulting alternatives) 2) impact on institutions' bottom lines-savings realized? (administrations' satisfaction with resulting alternatives). /Between 1989- 2006, estimated 36% and 44% of hospital libraries closed see: Thibodeau P.L, Funk C.J. J Med Libr Assoc. 2009 (PMCID: PMC2759173) & Krafty Librarian <http://kraftylibrarian.com/?p=53>, June 17,2009.
- 125 How does information obtained from the medical library effect patient care?
- 128 How will the integration of mobile technologies in healthcare affect libraries?
- 133 The impact of access to evidence-based point of care tools (Up To Date, DynaMed, First Consult) on medical student and resident usage of primary journal literature to answer patient-centered questions.

INVENTORY OF RESEARCH QUESTIONS, continued

- 134 How do we measure the impact of bibliographic instruction on students' learning or outcomes?
- 136 Can accessing and using the medical literature improve medical decision making and patient care?
- 138 Is there a significant difference in patient outcomes (or research output or educational outcomes) between institutions with and without libraries?**

Professional Issues: education of librarians, roles in the institution, skills needed, and compensation.

- 2 How best do we teach library professionals how to become creative in solving problems?
- 4 We need to do some market and conceptual research on the image and role of medical librarians and attempt to define ourselves in a way that will increase and enhance our public profile, status and usefulness to our organizations.
- 9 How do career paths in medical librarianship compare to those of other professions serving the same institutions?
- 16 What is our (the health sciences library professional's) role in evidence-based practice and research? How can we be integrated into evidence-based practice and research? Is this the best means for making library professionals the most relevant to our academic, clinical, and research audiences? [single concept expressed in three different perspectives].
- 17 What is the most important element in the profession of librarianship that will sustain us globally. How do we protect this and promote our uniqueness?
- 26 How can we make the practice of medical librarianship evidence-based? How do we define effectiveness in this new information rich environment? What are appropriate measures of effectiveness? What are the desired outcomes and how do we measure them?
- 27 What does the future hold for Librarians? Technology has created a faster and more complex work environment and we are now having to learn many new skills in order to do our jobs. Librarians are doing many less traditional jobs and yet they are still required to have traditional training. What kind of changes loom in our future and how will the profession step up to meet the challenge?
- 29 What is the meaning of life, the universe and everything ... or what is the best question for which I am in the right place at the right time and with the right skills to gather and analyze evidence to answer?
- 33 What role can medical librarians play in helping researchers complete systematic reviews of the literature?
- 36 What are we prepared to do to increase the number of qualified applicants for positions in the medical librarian field? We are seeing a marked decline in such candidates; and unfortunately, many in our field have not been terribly supportive of recruitment of degreed masters in the field of librarianship. We are dumbing down our profession by such action.
- 38 How do libraries and librarians survive in this changing world?!
- 40 The rapid changes in the health, biomedical and technology areas (biomedical informatics, translational medicine, etc) are changing the knowledge and skills expected of Librarians. How are librarians (especially those with traditional roles) acquiring the skill set required to adapt and are librarians being viewed by administration and stake holders as having a role in these areas?
- 42 How can librarians strategically present themselves and the library as "essential" to health care practice within their respective institutions and beyond?
- 45 What do clinicians, health sciences students, researchers, general scholars, and patients/health care consumers want from medical or health sciences libraries and library professionals. How do they view our role as unique from other Internet and commercial information sources, vendors, and publishers?

INVENTORY OF RESEARCH QUESTIONS, continued

- 48 An important skill for librarians/information professionals is effective online searching. Do medical librarians measure the effectiveness of their searches on a regular basis, and what measures do they employ?
- 51 What training or education is needed to meet the diverse technology needs of the next twenty years, aka do medical librarians need to become "Systems Librarians" to handle the diverse technological issues involved with electronic access, electronic resources, website maintenance, and leading mobile technology marketing and teaching?
- 55 As more and more universities continue to evolve and technology advances, libraries and their staff face budget cuts and space reallocations. How do we prepare ourselves and our staff to evolve with the times and what are 2nd career job choices that fit perfectly with our chosen profession of choice?
- 60 Low health literacy can result in medication errors, noncompliance of treatment regimes, poor health outcomes and even death. What is the role of the medical librarian with health care providers, community organizations, local public libraries and members of the public to improve health literacy among entire communities?**
- 62 Hypothesis: Hospital libraries that continue to thrive in the 21st Century possess unique characteristics that can be identified and replicated.
- 66 How do we entice newly graduated medical librarians?
- 67 *Does the use of professional searchers (usually but not necessarily librarians) improve the quality of systematic reviews? Does the process of peer review of search strategies for systematic reviews improve the quality of systematic reviews?*
- 72 How will the medical library, and librarians themselves, remain a relevant and needed profession in the age of online research?
- 73 How do we define our roles as health information professionals in the coming decades of the 21st century in an ever changing health environment? Comment: We need to identify and project economical, political, technological and societal factors that are effecting changes in who we are and what we do.
- 75 Currently, there is an insistent problem of assessing "enough information" in an environment presenting overwhelming options in gathering information through electronic databases and other resources. The extent of available information becomes a barrier in making decisions. How does the information specialist evaluate search results to provide "enough information" to clinicians for decision-making?
- 77 How should medical librarians involve themselves in clinical and technical ways to remain relevant in the emerging and constantly changing healthcare environment from initial education through community clinical participation?
- 78 Are library schools preparing the professionals of tomorrow for work in academic institutions that are rapidly changing, streamlined, high performing, and results-oriented?
- 79 What can we do to meet the ongoing changes of our profession, that necessitates librarians have the knowledge/skills/tools/training and understanding to interact with clientele, partners, administrators, and stakeholders, in order to make informed decisions about issues related to technologies, services and collections facing our libraries now and in the coming years?
- 83 How is the role of the librarian changing in light of patient-driven healthcare?
- 91 What role will medical librarians play in assisting with the improvement of health literacy among the U.S. population in order to allow them to make informed health care decisions?
- 95 How do information specialists (professionalists) or librarians prove the need for a library or an information center in our increasingly automated world and profession?
- 99 With the wide variety of information resources reaching our constituencies' fingertips, and some people deciding they no longer need a librarian, how do we reinvent ourselves and justify our existence?

INVENTORY OF RESEARCH QUESTIONS, continued

- 103 The single most important and answerable research question facing the medical library profession is how to prepare medical librarians in technologies that will enable them to function when faced with increasing pressure to close physical libraries and move entirely to an online-only mode of operation.
- 104 How must the school curricula be revised to equip new professionals for the rapidly transforming field?
- 107 Qualitative research question: How should the resources and services made available through health sciences libraries evolve to ensure their continued relevance in educational, research and clinical environments?
- 109 The explosion of information, expanding of technology (especially mobile technology), and complexity of healthcare environment present medical librarians and medical libraries opportunities and challenges. To live up with the opportunities and challenges, what kinds of skill sets or information structure do medical librarians or medical libraries are required to have or acquire so as to be strong partners or contributors of continuing effectiveness to the changing environment?**
- 113 What will be the new role of the medical library in the 21st century?
- 116 As we retire and move out of the profession who will be replacing us and what skills, knowledge, and understanding of the profession will they need to continue and elaborate on the work we have done.
- 120 Where does the medical library profession fit in this age of mobile applications and social media?
- 123 How can we best maximize our usefulness/utility to our patrons - maximizing use of librarians, staff members, resources, and facilities - especially in light of diminishing support? Hmm ... maybe that's not answerable...
- 126 What library roles are most valued by academic health sciences administrators?
- 129 What is the image of librarians in the academic world and is there a way for librarians to change our image, assuming it is a nonflat-tering one, to that of a more professional one or is it too late?
- 130 How do we as medical librarians offer our resources and services in a meaningful way to our users? How do we incorporate things like mobile devices and Health Care Reform (EHR's) into our presentation of our services?
- 132 *What role(s) do medical librarians/informationists play within their organizations' use of EHRs and can these roles contribute to meaningful use?*
- 137 Do younger librarians tend to avoid MLA activities and conferences?
- 140 Predictors/characteristics of successful HSL directors.
- Value:** financial worth or return-on-investment made by the library/librarian for the parent institution.
- 1 What cost per year will the Medical Librarian save insurance/companies/government agencies and patients) when further embedded within the healthcare arena with Doctors and Patients? What will be the Return on Investment?
- 5 *How can medical librarians measure the impact of their services on their constituency? What methods would work better? How do we interpret the results? How do we communicate these results to our constituency? Is there a way to put these results into financial or concrete terms?*
- 8 What is the value of a medical librarian in today's wired world?
- 18 What is the return on investment of the library's support of its institutions main goals (research, education, clinical care, etc.)?
- 21 For medical libraries in general and hospital libraries in particular, how can physical libraries and staff be justified when information on anything and everything is "free" on the internet? In other words, what is the value of a physical library staffed with a degreed medical librarian and paraprofessionals?

INVENTORY OF RESEARCH QUESTIONS, continued

- 28 What is the value that a hospital/academic health sciences library provides to its institution? Is it value-added? Cost-savings? This question is asked all the time and, probably, should be tailored for each library, but surely some of this can be plug and play. So: what is the limit of plug and play? How much of a valuation study can be boiler plated, and how much must be home-grown? So maybe this is multiple questions. Feel free to rephrase.
- 31 How do health sciences librarians in any setting demonstrate their value to the institution they serve?
- 32 What is the best method for libraries to demonstrate their value to prevent budget cuts in these economic times?
- 39 How can we show value in the library services we provide? I think we need to look at different methods to evaluate value, test those methods, and see what method would best determine value.
- 44 What does the concept of expertise mean in health sciences librarianship today? Do librarians possess a particular expertise that can be recognized and validated in a health care environment driven and measured almost solely by quantifiable indicators, i.e., revenue and expenses?
- 50 How do HR departments evaluate librarians' job categories and salaries in non-academic environments?
- 52 How do medical librarians continue to show management that we are relevant and important to our institutions' missions?
- 54 How can libraries prove their worth to the institution administration? How can librarians get involved in the institution outside the library?
- 56 What are the best methods for libraries to demonstrate the value they provide to their institution and the best metrics for gathering the necessary data?
- 57 *How have librarian salaries changed over the development of the profession? Do salaries reflect the multitude of tasks librarians are asked to perform (reference/tech support/collection developer/manager/researcher/etc.)?*
- 82 How can one translate the value of the monies expended upon library services and resources into tangible benefits for their patrons?
- 85 How can we determine/measure the library's true and complete -- both quantitatively and qualitatively -- value to the for-profit, not-for-profit, or nonprofit organization?
- 86 How can we measure the ROI of the services and collections of academic health sciences libraries in terms of value to the research process (grant-writing, conducting research, etc.), faculty productivity, teaching, the learning experience, and contributions to life-long learning? (If we can't quantify and prove our value to our institutions, we are in trouble)
- 88 There is growing evidence on the value of library materials and databases (Library value Study). How do we demonstrate the value of the librarian? Administrators want hard data so what do we do to demonstrate we actually save time and money for the physician in clinical practice?
- 94 How medical librarians can increase market values in various job setting?
- 97 How do we continue to stay relevant & necessary, as perceived by researchers & information seekers in general? Especially in an environment of RIF (reduction in force) and ever-shrinking budgets. As funding becomes less & less, how do librarians position themselves & reprioritize our many projects & initiatives in order to get the most "bang" for the minimized "buck"?
- 100 How do we prove our value as librarians and keep our libraries in hospital, academic, and specialized health related associations?
- 114 How well the medical librarians are paid based on what the librarians contributed?
- 135 The impact of libraries the quality of programs offered by academic health centers, hospitals or health systems. The actual sustained or improved levels of quality in education, research and patient care. Ultimately, to put it in different words, the return on investment in libraries to the institution.

INVENTORY OF RESEARCH QUESTIONS, continued

- 139 What is the return on investment for a medical library with a professional librarian in a non-academic hospital setting? How can we use this information to advocate in favor of keeping hospital libraries with professional librarians open?
- 141 What is the most effective way to apprise users of the value of library services?

tacking public sector employees such as firefighters, police, teachers, and librarians in states such as Wisconsin and Ohio [11-12]. The authors have observed in the past that their librarian colleagues in the public sector often perceive that their positions are often the last to be funded for posting, and that library positions are often among the first to experience reductions in force. If a library position becomes vacant due to retirement or departure, librarians often view this vacancy as a high-risk situation since the position might be either eliminated, left vacant permanently, or among the last to be filled long after other similar positions would have been filled.

ANALYSIS

Table 1 breaks down the 140 questions by their individual topic domain. It further breaks down each domain according to its representation in the 35 Semi-finalist questions and the 15 Finalist questions.

As already noted in the Classification section above, the Research Agenda Committee modified the question categories due to the types of questions that predominated in the original 140 Phase One responses. The reader will share the authors' initial and unanimous surprise by the tone and direction of many questions suggestive of high anxiety about the future status of health sciences libraries. The effect of the poor economy in the U.S. on health-related institutions in both the private and public sectors probably explains these exceptional concerns.

During September and October 2008 the US experienced its most severe financial crisis since the 1930s Great Depression [7-10]. By 2011 when the 2011 Delphi study was underway the economic crisis had by then led to many cutbacks in both the private and public sectors. Some politicians were at-

The list of questions under the subject heading "Professional Issues" best capture the anxieties felt during 2011 that were documented by this Delphi study. Consider questions 27, 38,72, and 99:

What does the future hold for Librarians?... What kind of changes loom in our future and how will the profession step up to meet the challenge? (27).

How do libraries and librarians survive in this changing world?! (38)

How will the medical library, and librarians themselves, remain a relevant and needed profession in the age of online research? (72)

With the wide variety of information resources reaching our constituencies' fingertips, and some people deciding they no longer need a librarian, how do we reinvent ourselves and justify our existence? (99)

Table 1: Question Totals Breakdown by Delphi Study Phase

Subject Domain	Phase One Questions	Phase Two Semi-Finalist Questions	Phase Three Finalist Questions
Collections	8	6	0
Education of Users	8	5	2
Information Access	15	8	4
Outcomes/Impact	38	10	7
Professional Issues	45	4	2
Value	26	2	0
TOTALS	140	35	15

INVENTORY OF RESEARCH QUESTIONS, continued

Embedded in more reserved questions in this subject section one finds emotionally-charged phrases and words such as “dumbing down” (36), “protect” (17), “prove the need” (95), or “nonflattering” image of librarians (129). The “Value” subject section of questions also similarly expresses apparent anxieties in more reserved terms such as “return on investment” (18), “justified” (21), “prove their worth” (54), “demonstrate the value of” (56), and staying “relevant & necessary” (97). The concept of relevance also appears under the “Information Access” heading in questions 25 and 70. Under the “Outcomes/Impact” heading one finds phrases such as “Does what we do matter?”(14) and “What if we aren’t there at all?” (30). Question 138 asks the stark existential question, “Is there any significant difference in patient outcomes (or research output or educational outcomes) between institutions with and without libraries?”

The anxieties about the financial future of libraries reflected in a number of these research questions might lessen in the next few years if the U.S. economy improves. Yet, these anxieties most likely will persist until the economy improves dramatically and this improvement translates into better funding of health sciences libraries.

REFERENCES

1. Medical Library Association. The research imperative: the research policy statement of the Medical Library Association. Available at URL: <http://www.mlanet.org/research/policy>. Accessed February 12, 2012.
2. Eldredge JD, Harris MR, Ascher MT. Defining the Medical Library Association research agenda: methodology and final results from a consensus process. *Journal of the Medical Library Association*. 2009 Jul;97(3):178-85.
3. Harris MR, Ascher MT, Eldredge JD. MLA leaders and Research Section identify major research questions. *Hypothesis* 2008 Summer; 20 (2): 13-19.
4. Eldredge JD, Ascher MT, Holmes HN, Harris MR. The new Medical Library Association research agenda: final results from a three phase Delphi study. *Journal of the Medical Library Association* 2012 Jul; 100 (3): in press.
5. Koufogiannakis D, Slate L, Crumley E. A content analysis of librarianship research. *Journal of Information Science*. 2004; 30:277-39.
6. Crumley E, Koufogiannakis D. Developing evidence-based librarianship: practical steps for implementation. *Health Information and Libraries Journal*. 2002; 19:61-70.
7. Barkley T. The financial crisis: losses on bad U.S. assets could top \$1.4 trillion. *Wall Street Journal*. 2008 Oct 8: A3.
8. Izzo P. U.S. news: economists expect crisis to deepen. *Wall Street Journal* 2008 Oct 10: A6.
9. Cummins C, et. Al. The financial crisis: global fallout. *Wall Street Journal* 2008 Oct 15: A6.
10. Kosterlitz J. Shaken faith. *National Review* 2008 Sep 27: 50.
11. Rothschild M. What’s at stake for workers. *The Progressive*. 2011 April: 8-9.
12. Nichols J. The Post-Wisconsin game plan. *The Nation* 2011 May 30P: 13-16.

CHAIR'S COLUMN

Kristine Alpi, MLS, MPH, AHIP

William Rand Kenan Jr. Library of Veterinary Medicine, North Carolina State University

A RESEARCHER'S NEW YEAR'S RESOLUTIONS

With the end of a year comes the joyous realization that another year of our professional lives is coming to an end and it is time to take stock of all the work, personal, and professional projects in progress. It becomes very easy to focus on all that remains undone. First, take the time to celebrate your accomplishments whether they were planned or not. Then, you can turn to the question of why some projects stagnated. It happens to all of us, and sometimes for good reason. Here are a few of the statuses and reasons I tend to identify and what might help move things along.

Not yet started? Is it that I am no longer excited by the topic? Is it really something that I need to do? Probably this is a sign that I shouldn't start, and should just let this item fall gracefully from my list. If it should be done, just not by you, consider suggesting the idea to a discussion list interested in the issue or a library school faculty member.

Am I still excited by the topic, but not sure where to begin? Or I think I know what needs to be done, but don't have the expertise? Find a research friend: an MLA member interested in mentoring or co-investigating, a researcher or statistician in your own institution, an online community interested in the problem space. Sometimes taking a university course and using the topic as your course project is a way to get credit, have external deadlines, and at low cost if you have tuition reimbursement or auditing as part of your benefits package.

Of course, the perennial "not enough hours in the day" remains. Look closely at all aspects of your project and see if any of them can be automated, eliminated, or done by student workers or colleagues during quiet desk shifts. No such thing as a quiet desk shift, consider writing a proposal to fund your work that includes funds to cover scanning, data entry, etc. that might free up your time for analysis. And remember a front-end investment in learning a new tool might save tons of time in the analysis phase.

Although the December 1 deadline for MLA project grants has passed, there are many other MLA

Chapters and Sections, along with other funding organizations with different deadlines that may have research awards or be interested in funding proposals from librarians. See <http://research.mlanet.org/grant-opportunities.html> for some of these.

Worried that someone is going to "scoop" you on the project because it is taking so long? Make sure you have literature alerts from Google Scholar or Web of Science on your topic, so that you know what is being published on the work you are investigating. It will help your literature review, and you'll know whether your topic is still fresh.

The Research Section membership has several projects in process as well, and as I take stock of them below, I invite you to participate in helping your colleagues advance these projects, as well as identify other New Year's Resolutions you would recommend for the Research Section.

1. Analysis and implementation of findings reported in the 2011 Research Survey of MLA Members. A team of RS members (Susan Lessick, Brooke Billman, Carol Perryman, Sandra De Groote) has analyzed the responses about MLA member research and these will soon be submitted for publication. I have analyzed the responses to the question specific to the Research Section and we have used those ideas and concerns to guide some of this year's Section goals. I will further share those findings with you in more detail in 2013 so that the Section collectively can decide what ideas to pursue.
2. Awards committee chaired by Sandra De Groote is developing criteria and process for the committee to select the best research paper published in JMLA for 2011-2012 to be awarded in 2013. She will also be seeking volunteer judges for the identification of the best research posters and papers at the 2013 MLA annual meeting.
3. Continuing education chair Leslie Behm is reviewing current MLA Research courses to assess the possibility of having more online research course offerings available for MLA CE

CHAIR'S COLUMN, continued

credit for those who do not wish to take CE courses at the MLA annual meeting.

4. The MLA Research Agenda committee published the new agenda in July 2012 (Eldredge JD, Ascher MT, Holmes HN, Harris MR. The new Medical Library Association research agenda: final results from a three-phase Delphi study. *J Med Libr Assoc.* 2012 Jul; 100(3):214-8.) This team chaired by Jon Eldredge is now recruiting volunteers for systematic review teams around each of the questions/issues proposed for study.

Consider making a New Year's Resolution is to get more research experience, to publish, and/or to become more involved in MLA in any way – here are just a few of the options coming in 2013!

1. Volunteer for a Systematic Review team for one of the MLA Research Agenda topics described in this issue.

2. Write for *Hypothesis*, *MLA News*, or *JMLA* on a topic, technique, question, or tool that might be useful or valuable to our members. Contact the editors to see how you can contribute.
3. Meet more potential collaborators and shape your Section by nominating yourself or a colleague for one of the officer positions for 2013-14. Nominating committee chair Carole Gilbert will be seeking a Secretary/Treasurer, a Chair-Elect, and a nominee to the MLA Nominating Committee.

I look forward to a new year of exciting progress on building and using the knowledge base of health sciences librarianship and information sciences. Need a moment to get away? Enjoy the New Year's Resolutions from a life scientist—visit Bitesize Bio—<http://bitesizebio.com/articles/new-year's-resolutions-for-the-lab/>



THE RESEARCH MENTOR

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TOP-RANKED RESEARCH QUESTIONS AND SYSTEMATIC REVIEWS

Most health sciences librarians recognize that the Evidence-Based Practice process, regardless of professional context, begins with formulating an answerable question. Evidence-Based Medicine, Evidence-Based Nursing, Evidence-Based Public Health, and Evidence Based Library and Information Practice all share in common the initial step of question formulation [1,2].

The research process similarly begins with formulating an answerable question. This first step in the research process involves an added iterative dimension since the initial search for the evidence, commonly referred to in the research process as either the “Literature Search” or the “Literature Review” serves to further clarify the direction of subsequent research. The initially-formulated research question typically undergoes additional refinement at this stage once the individual researcher or research team considers the methods or findings of prior studies on the same or related subjects. Discussions with colleagues often lend greater clarity and purpose to the evolving research question.

For this reason, most experienced researchers depict this initial question-formulation step as one of the most challenging aspects of the research process. A poorly-constructed research question potentially can doom the researcher to veering off course into inappropriate methodologies or other unproductive research-related pursuits.

The MLA Research Section’s Research Agenda Committee has made the initial question-formulation step in the research process far easier by identifying through a multiphasic Delphi method the most important 15 research questions facing our profession. The July 2012 issue of *Journal of the Medical Li-*

brary Association contains details of the Committee’s methodology, study limitations, and research results. This Delphi method study, quickly summarized, involved the Committee querying 581 MLA leaders in both elected offices and appointed positions to formulate the most important and answerable question facing health sciences librarianship. The Committee distributed the 140 viable questions emerging from this survey to 298 recently published authors of research articles in health sciences librarianship or MLA Research Award-recipients. 108 researchers volunteered to review the 140 questions and each to select up to 10 of what they considered to be the most important and answerable questions. During this second phase the researchers winnowed the list down to 35 top-ranked questions. The same MLA leaders who had participated in the first phase were asked in phase three to select their top three research questions from the 35 questions. The top-ranked 15 research questions emerging from this third phase of the Delphi method constitutes the new MLA Research Agenda. The full list of 140 questions produced in this first phase in this study appears elsewhere in this issue of *Hypothesis*. The top 15 research questions are highlighted in this same list.

The new MLA Research Agenda provides health science librarian researchers with both important and answerable questions for applied research. The Research Agenda Committee now proposes to coordinate teams consisting of health sciences librarians and possibly library science students to conduct systematic reviews to identify the best available evidence to answer these important research questions. One member of each team will serve as the principal investigator (PI) for the team. The Research Agenda Committee proposes to work with

RESEARCH MENTOR, continued

other Research Section leaders to assign teams and select PIs from volunteer applications. This application form will be brief and the selection process should be as efficient as possible.

Each team will be appointed a liaison from the Research Agenda Committee. This liaison will serve as a consultant and help formulate the search strategy. Those members of teams who fulfill the criteria for co-authorship will be listed as authors on the final published article and any open-access documentation of the process [3].

SYSTEMATIC REVIEW DEVELOPMENT PROCESS

1. Development of search strategy
 - a. The team will meet, most virtually, several times to: 1) refine the research question, 2) select appropriate databases and other grey literature sources such as conference papers and posters; and 3) devise search strategies. At a bare minimum each team should search 3-5 sources that cover the information science and health sciences literature.
 - b. The search strategies will follow an iterative approach and the workload shared among members [4]. Search strategies will need to be adapted to different databases or grey literature repositories.
 - c. The search strategies will be peer reviewed by the liaison to that team as well as by one other peer reviewer with demonstrated expertise in the respective area of research.
 - d. It is extremely important that search strategies be fully documented and widely accessible in their entirety so they are replicable [5].
2. Identification of best evidence
 - a. We expect that there will be few high-quality studies for full systematic reviews and meta-analyses on these topics.
 - b. Teams must document the search process using the PRISMA flow chart template.
 - c. After running the searches and coming up with initial search results the three member team will identify relevant studies by reading abstracts and selecting potential relevant studies.
 - d. Teams will employ explicit eligibility criteria for inclusion and exclusion of reviewed studies. The Committee recommends that the

teams not only submit their search strategies for peer review but also have peer reviewers lend oversight to their inclusion and exclusion criteria.

3. Creation of literature database
 - a. Teams will work using tools that members agree upon with recommendations by the Committee that they use collaborative tools to streamline the process and aid in development of a database of evidence/studies relative to the MLA Research Agenda.
 - b. The Committee is proposing using Mendeley because it is collaborative and open and thus not tied to one institution. Details of input will be forthcoming.

The teams will have the freedom to conduct their workflow as best suits their members' preferences within the parameters of the project guidelines. Research Agenda Committee members hope that this coordinated process will produce a clearer understanding of the current knowledge base in these key areas identified within health sciences librarianship. These systematic reviews will provide valued further guidance for productive research in these high-priority areas. Interested readers should contact the authors.

REFEREMCES

1. Booth A. Clear and present question: formulating questions for evidence based practice. *Library Hi Tech* 2006; 24 (3): 355-68.
2. Eldredge JD. Evidence-based practice. In: *Introduction to health sciences librarianship*. Edited by Sandra Wood. Binghamton, NY: Haworth Press, 2007: 245-69.
3. Eldredge J. The research mentor: authorship part two: order of authors. *Hypothesis* 2010 Spring; 22 (1): 8-11.
4. McGowan J, Sampson M. An evidence based checklist for the peer review of electronic search strategies (PRESS ESC). *Evidence Based Library and Information Practice* 2010; 5 (1): 149-54. Accessed 12 November 2012. Available from: <<http://ejournals.library.ualberta.ca/index.php/EBLIP/article/view/7402>>
5. Harris MR. The librarian's roles in the systematic review process: a case study. *Journal of the Medical Library Association*. 2005 Jan;93(1):81-7.

RESEARCH SECTION NEWS

RESOLUTION HONORING THE RESEARCH SECTION OF THE MEDICAL LIBRARY ASSOCIATION

Medical Library Association

Whereas, the Research Section of the Medical Library Association (MLA), Inc. has been in existence for 30 years;

Whereas, the Research Section was established to foster research related skills of individual health sciences librarians; to promote interest in research and an awareness of research needs among members of MLA; to recommend and promote MLA programs and policies which advance research development and excellence; and in concert with other MLA groups and committees, to serve as an action group for the advancement of library and information services related research;

Whereas, the Research Section encourages MLA members to engage in research activities by sponsoring annual research awards that recognize paper and poster presenters at the MLA Annual Meeting whose work demonstrates high-quality research;

Whereas, the Research Section furthers MLA's Research Agenda through many initiatives including its research mentoring service, the development of annual meeting programs on timely and relevant issues, the development of a new "pyramid research

symbol" that is published in MLA's Official Program highlighting research papers and posters presented at the annual meeting; and the development of the landmark 2011 association-wide survey of the research activities of health information professionals;

Whereas, the Research Section is committed to supporting MLA's Donald A.B. Lindberg Research Fellowship Program through monetary contributions and the development of a list of research topics of highest priority for health information professionals" to inform the MLA Research Agenda and Donald A.B. Lindberg Research Fellowship program;

Whereas, members of the Research Section have furthered MLA's mission by serving as president, on the Board of Directors and MLA committees and task forces; be it therefore

Resolved, that the Medical Library Association commends the Research Section for 30 years of excellent service and accomplishment in support of the profession of health sciences librarianship.

Adopted February, 2012

MLA 2012 ANNUAL MEETING RESEARCH AWARD WINNERS

Donghua Tao, PhD, MA, MS, Co-Chair, Awards Committee

Medical Center Library, Saint Louis University

Sandy De Groote, AHIP, Co-Chair, Awards Committee

University Library, University of Illinois at Chicago

Congratulations to the 2012 MLA Annual Meeting Research Award winners selected by the Research Section Awards Committee and Judges! Thanks to the 37 preconference and onsite judges for their excellent efforts to identify these wonderful papers and posters using the evaluation criteria on the Research Section website. This year, we have one 1st place for both papers and posters; one 2nd place for both papers and posters, three honorable mentions for both papers and posters, and one Hospital Librarian Research Award for posters. The Research Section presented a \$100 cash award for 1st Place both papers and posters. A \$50 cash award is presented for 2nd Place for both papers and posters, a \$25 cash award is presented for each Honorable Mention paper and poster, and a \$100 cash award for the Hospital Librarian Research Award for posters. Enjoy the abstracts of the winning papers and posters. We hope that you are inspired to submit your research for future annual meetings.

(Note: First authors who are Research Section members are denoted by *.)

CONTRIBUTED PAPERS

1st Place

Authors: **Shelagh K. Genuis**, Post Doctoral Fellow, Centre for Health Promotion Studies, University of Alberta, Edmonton, AB, Canada

Title: Assessing Consumers' Perspectives on Health Information Needs: Understanding Patients Who Value both Health Professionals and Oprah Winfrey as Mediators of Medical Knowledge

Section Program: Patient Advocacy: Meaningful User Needs Assessment (Corporate Information Services Section)

Abstract:

Objectives: This paper assesses how women make sense of uncertain and evolving medical knowledge mediated by formal and informal sources. It investigates patients' understanding of "evidence" and their need for both "factual" and experiential information. Drawing on media complementarity theory, it explores how librarians can advocate for users

who interact with diverse sources and types of knowledge.

Methods: Set in a context where health information is explicitly evolving, this study explores women's information needs and their strategies for integrating information from formal and informal sources. Semi-structured, qualitative interviews were conducted with samples of (1) women engaged in information seeking and gathering related to the menopause transition (n=28), and (2) health professionals (HPs) acting as information providers to this population of women (n=12). Recruitment occurred in the community and at a hospital-based menopause clinic. Interviews with women incorporated a narrative approach and in-the-moment elicitation. Women were presented with contrasting media articles to elicit reflection on media-mediated health information. HP interviews addressed themes arising from women's interviews, and HPs' roles as information providers. Data analysis (facilitated by NVivo 8) incorporated directed content analysis guided by theory and grounded theory's constant-comparative method.

Results: Participants valued information about non-crisis health management that was incidentally encountered and deliberately sought from a wide range of formal and informal sources. Findings reveal that women moved fluidly between sources and that they constructed "evidence" as research, material object, negotiated belief, and lived experience. Whereas health professionals tended to be leery of information mediated by informal sources such as the Internet, interpersonal contacts, and the media, interviewed women looked to different forms of evidence to fulfill different information needs. Using Oprah Winfrey's foray into the topic of menopause management as an illustration, this paper demonstrates that complementarity, rather than displacement or competition, guided women as they made sense of formal and informal health information.

Conclusions: While many user studies in library and information science emphasize the user's perspective, librarians and information professionals working in health fields have tended to focus on their roles as mediators of formal information sources and research-based evidence. Findings from this study suggest that women viewed informal

RESEARCH AWARD WINNERS, continued

and formal health information as complementary and that health librarians have roles to play both as facilitators of formal information resources and as advocates for the user's perspective. In order to fulfill this latter role, librarians should move beyond an emphasis on "good" vs. "bad" information sources and, focusing on generic health literacy skills, view health information-seeking practices from the perspective of complementarity.

2nd Place

Authors: **Paul M. Blobaum**, Health and Human Services Librarian, University Library, Governors State University Library, Park Forest, IL

Title: Who's on First? Mapping the Literature of Addictions Treatment

Section Program: Hall of Fame: Nursing and Allied Health Information and Scholarship in a League of Their Own (History of the Health Sciences Section)

Abstract:

Objectives: Collection development research activities provide health sciences librarians opportunities for outreach and establish new relationships. This study moves the Nursing and Allied Health Resources Section (NAHRS) "Mapping the Literature of Allied Health" project beyond investigations in traditional allied health fields to identify core addictions journals. Recognition of addiction as a disease of the brain points to the important role librarians play in disseminating research.

Methods: Citations from three source addictions journals were documented and analyzed for the years 2008, 2009, and 2010 using the NAHRS methodology, "Mapping the Literature of Allied Health Project Protocol" of 2010. Addictions studies faculty were surveyed by email and face to face to assist in identifying the three source journals. Bradford's Law of Scattering was applied to analyze the productivity of cited journals. An analysis of indexing availability was performed on core journals. Other cited reference types of book, Internet, and government document were analyzed.

Results: Over 40,000 citations were studied. Journals were the most frequently cited literature, with 10 journals providing one-third of the cited journal references. Two thousand, six hundred sixty-two unique journals were cited. Ten "Zone 1" journals were cited as frequently as 80 "Zone 2" journals. MEDLINE/PubMed emerges as the single most important index to this field.

Conclusions: This study expands the NAHRS journal mapping studies into new a new area of inquiry

into subject areas on the perimeter of traditional allied health discipline, and is the latest contribution to the thirty-four NAHRS mapping project studies using this protocol published as of January 2012. Results provide quantitative evidence of a core set of English language scholarly journals in the addictions treatment field and can be used by librarians to make collection development decisions. Results also bring new understanding of addictions treatment literature and key research databases to educators and professionals in the field.

Honorable Mention

Authors: ***Jennifer A. Lyon**, AHIP, Clinical Research Librarian, Health Science Center Libraries, University of Florida, Gainesville, FL; **Jessica Schumacher**, Assistant Professor, Health Services Research, Management and Policy, College of Public Health and Health Professions, University of Florida, Gainesville, FL; **Erin M. Dunbar**, Assistant Professor, Department of Neurosurgery, and Co-director, Preston Wells Center for Brain Tumor Therapy, University of Florida, Gainesville, FL; **Jennifer West**, Clinical Research Coordinator, Department of Neurosurgery, McKnight Brain Institute, University of Florida, Gainesville, FL; **Mary Edwards**, AHIP, Distance Learning and Liaison Librarian, Health Science Center Libraries, University of Florida, Gainesville, FL

Title: Illuminating the Distinct Information Needs of Brain Cancer Patients and Their Caretakers During Routine Clinical Care

Section Program: Patient Advocacy: Meaningful User Needs Assessment (Corporate Information Services Section)

Abstract:

Objectives: Brain cancer patients and their caregivers must make rapid, complex decisions while under shock. Our preliminary data suggest the specific needs of patients and caregivers are distinct. Effective, individualized information delivery toward each is critical, yet still poorly understood. Utilizing hypotheses derived from pilot investigations, we expand explorations into effective, individualized, and distinct information needs of patients and caregivers.

Methods: Participants were recruited from the Preston A. Wells, Jr. Center for Brain Tumor Therapy at the Shands Hospital at the University of Florida. During clinic visits, patients and their caregivers were invited to participate in semi-structured focus groups designed to elicit their preferences for diag-

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nosis and treatment-related information, including content, format, source, and timing. Also, they were invited to give feedback on a tailored online resource. Audiotapes of the sessions were transcribed, removing any personal health information (PHI), and then thematically coded by blinded investigators until theme saturation was met.

Results: Caregivers play a vital role in health information seeking as patients are often too sick after diagnosis, when critical treatment decisions must be made. Regarding specific information needs, patients focused on immediate decision making regarding treatment and symptom relief, while caregivers were concerned with researching treatment and provider options, handling the practicalities of care and longer-term prognosis, and maintaining domestic life. Both reported being frustrated with the low reliability and overwhelming number of results from Internet search engines and responded positively to the new information resource.

Conclusions: Delivering the information needed to optimize decision making and outcomes for brain cancer patients and their caregivers is a significant challenge. Health care professionals must be sensitive and proactive in meeting those needs and must consider the importance of involving the caregiver early and often. Further, the addition of a health sciences librarian to the team can assist in the systematic delivery of reliable and high-quality information.

Honorable Mention

Authors: ***Kristine M. Alpi**, AHIP, Director, William Rand Kenan, Jr. Library of Veterinary Medicine, North Carolina State University, Raleigh, NC; **James C. Brown, Jr.**, Clinical Assistant Professor, Diagnostic Imaging, North Carolina State University, Raleigh, NC; **Jennifer A. Neel**, Assistant Professor, Clinical Pathology, College of Veterinary Medicine, North Carolina State University, Raleigh, NC; **Carol B. Grindem**, Professor, Clinical Pathology, College of Veterinary Medicine, North Carolina State University, Raleigh, NC; **James B. Harper**, Interim Head, Access and Delivery Services, NCSU Libraries, North Carolina State University, Raleigh, NC; **Leigh G. Clark**, Manager, Interlibrary Loan and Document Delivery Services, Veterinary Medicine Library, North Carolina State University, Raleigh, NC

Title: Scanning Technology Selection Impacts Usefulness of Image-Rich Content

Section Program: Instant Replay: How Technology Is Changing Our Game (Veterinary Medical Libraries Section)

Abstract:

Objectives: Faculty and residents indicate that clinical and research usefulness of articles can depend on image quality. This internal review board (IRB)-approved study addresses whether scans of figures in black and white, grayscale or color, or portable document format (PDF) to tagged image format file (TIFF) conversions, as typically provided by interlibrary loan (ILL)/document delivery (DD), are viewed by radiology and pathology faculty and residents as acceptable replacements for original digital articles.

Methods: Eighteen figures representing diverse studies from major journals in radiology, clinical, and anatomic pathology were selected by residency coordinators. Original digital PDFs are the controls. Each figure was prepared in three or four experimental condition images: PDF converted to TIFF, and scans from the print journal in black and white, grayscale, and when appropriate, color—all using standard ILL/DD scanning parameters. Independent observers in the three disciplines, one with board certification and three residents, viewed each image online and indicated individually whether an image was acceptable and whether they could identify the feature described in the figure caption. They also ranked all the experimental conditions of each figure in terms of usefulness. Evaluating the image as the unit of analysis provides rates of acceptable scans and user preferences for scanning involving images in each discipline and across the three disciplines.

Results: Of 982 assessments of features in 87 anatomic pathology, 83 clinical pathology, and 77 radiology images, 511 (52%) allowed identification. Identification varied from 94% for originals and 90% for conversions to 3% for black and white, 26% for grayscale, and 47% for color. Unacceptable images (405) comprised 41% of 987 responses: 97% of black and white, 66% of grayscale, 41% of color, 1% of conversions, and no originals. For noncolor originals (n=96), unacceptability decreased to 48% for grayscale but remained 96% for black and white. Hypothesized order (original, conversion, color, grayscale, black and white) was selected in 67% of 215 ranking assessments.

Conclusions: PDF to TIFF conversion maintaining color is acceptable for delivering digital content. Eleven percent of color images scanned in grayscale were useful; in black and white, usefulness fell below 1%. Acceptability of noncolor originals scanned in grayscale was 52%, emphasizing the need for digital originals. To be useful to radiologists and pathologists, print articles containing color or

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grayscale images should be scanned by libraries using those modalities.

Honorable Mention

Authors: ***Aileen McCrillis**, Research Librarian, NYU Health Sciences Libraries, New York University, New York, NY; **Alisa Surkis**, Translational Science Librarian, NYU Health Sciences Libraries, New York University, New York, NY; **Dorice Vieira**, Clinical Librarian, NYU Health Sciences Libraries, New York University, New York, NY; **Pauline S. Beam**, Education and Information Services Librarian, Gustave & Janet Levy Library, Mount Sinai School of Medicine, New York, NY; **Tina O'Grady**, Doctoral Candidate, Biomedical Sciences, Tulane University, New Orleans, LA

Title: Survival and Success Beyond Grad School: Improving Library Services to Postdoctoral Researchers

Section Program: Hitting the Ball out of the Park: Reaching New Audiences (Public Services Section)

Abstract:

Objectives: Postdoctoral researchers (postdocs) are responsible for much of the research produced at academic institutions and have significant information needs. Because postdocs are neither students nor faculty, they are often overlooked in library outreach efforts. The purpose of this study is to assess the information needs of postdocs with respect to traditional and emerging library services and resources.

Methods: The authors held three focus groups at two institutions to evaluate the current library usage and information needs of postdocs. Based on the findings of these focus groups, an anonymous online survey was developed to assess the general information needs of postdocs, as well as their interest in emerging library services, such as bioinformatics support and data management. The survey was created using Qualtrics survey software and was distributed through institutional postdoc email lists and newsletters. Quantitative and qualitative data were collected and analyzed to answer questions of how traditional library services fall short of meeting the needs of postdocs, what emerging library services are seen as most needed by this population, and what their perceptions are regarding the role of libraries in providing these services.

Results: Of the 74 academic institutions contacted, 45 distributed the survey, and almost 3,000 responses were received from those institutions, with respondents varying in both experience and re-

search area. The predominant information needs identified were related to statistical analysis, bioinformatics, and data management. Identifying grant funding opportunities and research collaborators were also considered to be challenging tasks. Many respondents revealed a lack of awareness of or access to traditional library services, such as interlibrary loan.

Conclusions: Postdoctoral scholars have significant unmet information needs. The fact that many postdocs are not aware of library services or do not have full access to these services indicates that the information needs of this community have tended to be overlooked by health sciences libraries and/or by academic institutions. The responses relating to statistical analysis, bioinformatics, and data management highlight that these emerging library services are much needed.

CONTRIBUTED POSTERS

1st Place (Poster #30)

Authors: ***Jennifer A. Lyon**, AHIP, Clinical Research Librarian, Health Science Center Libraries, University of Florida, Gainesville, FL; **Michele R. Tennant**, AHIP, Assistant Director, Biomedical and Health Information Services and Bioinformatics Librarian, Health Science Center Libraries and UF Genetics Institute, University of Florida, Gainesville, Florida; **Hannah F. Norton**, AHIP, Reference and Liaison Librarian, Biomedical and Health Information Services, Health Science Center Libraries, University of Florida, Gainesville, Florida; **Rolando Garcia-Milian**, Basic Biomedical Sciences Librarian / Liaison, Biomedical and Health Information Services, Health Science Center Libraries, University of Florida / Health Science Center Libraries, Gainesville, Florida

Title: Analysis of Librarian-Mediated Literature Searches Using a Clinical Electronic Data Capture System

Abstract:

Objectives: The purpose of this project is twofold: to analyze librarian-mediated literature searches conducted by librarians at the University of Florida Health Science Libraries (HSCL) and to evaluate the usefulness of REDCap (a clinical trial data capture system) for storage, management, and analysis of search strategies, results, and requester demographics.

Methods: The HSCL's former paper-based system

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did not facilitate reuse of requests for training purposes or service evaluation or allow easy analysis of user demographics. In the fall of 2010, the HSCL initiated the novel application of REDCap to electronically record search requests and mediated results. Utilizing funds awarded by a UF Smather's Libraries Grant in November 2010, a 12-year backlog of paper-based mediated literature searches was entered into REDCap during January-April, 2011. Over 1,100 such searches exist and provide a robust data set for analysis. Simultaneously, HSCL librarians are prospectively and continuously recording new searches. REDCap reports can be generated and subjected to additional analysis in Microsoft Excel and other statistical analysis programs as needed.

Results: The data were scrutinized for user demographics, question types, topics, workload, and training needs. We examined relationships between types of questions and users, topics and medical specialties, and librarian experience and types of deliverables. Also, we investigated how patron populations, questions, and deliverables have altered as library services and structure have changed over the past twelve years. Finally, we examined the usability of the REDCap system for recording operational metrics.

Conclusion: The data gleaned from this project allow us to illuminate the information-seeking behaviors of HSCL clients. Rapid electronic access facilitates the reuse of search strategies and results, work flow tracking, user needs, and targeting of continuing education. Librarians can share results, identify subject topics for proactive preparation of materials, and recognize potential areas of collaboration. Future uses include tailored adjustments to HSCL collections, identification of novel users, and internal training for librarians.

2nd Place (Poster #76)

Authors: **Bart Ragon**, Associate Director, Knowledge Integration, Research and Technology, Claude Moore Health Sciences Library, University of Virginia, Charlottesville, VA; **Andrea S. Horne**, Research and Data Services Manager, Claude Moore Health Sciences Library, University of Virginia Health System, Charlottesville, VA

Title: E-Science Engagement among Health Sciences Libraries

Abstract:

Objectives: To determine the state of e-science support by health sciences libraries by assessing

current areas of engagement, professional development efforts, strategies for staffing, and service enhancement and development.

Methods: In 2010, an academic health sciences library established e-science support as a strategic priority. Partnerships with National Network of Libraries of Medicine (NN/LM), Southeastern/Atlantic (SE/A) Region, and the Mid-Atlantic Chapter of the Medical Library Association (MAC/MLA) allowed the library to sponsor an e-science boot camp and establish an e-science planning group. To further investigate e-science activities at academic health sciences libraries, an online survey of health sciences library directors was conducted. The survey examined how libraries are organized to provide e-science-related services, and what activities are being provided, including reference, consultations, training, and collection development. Staff development to build e-science-related skills for professionals was also examined. Information gathered from these e-science efforts is shared to support skill building, partnerships/community, and service delivery among other libraries and to further the discussion about library support for this emerging area.

Results and Conclusions: The survey was performed in the late summer of 2011, and twenty-seven were returned. The results found that libraries' institutions were organized in many different ways to provide e-science and data support on their campuses, with information technology a frequently reported partner in these efforts. Several methods were utilized to lead e-science initiatives, including group-led efforts. Of the specific services that were offered, most were led by liaison librarians, perhaps as an extension of their research support activities. Most libraries were utilizing existing staff and providing training opportunities to increase their knowledge. Many libraries did report having dedicated data librarians, representing, perhaps, a newer area of health sciences librarian specialization. Several libraries were involved in developing or purchasing researcher network and collaboration tools, indicating another area for potential campus-wide involvement for libraries. Many libraries were investigating available technologies to back e-science initiatives around data, and some had created data management websites for use by their constituents. With data-driven research common at today's academic medical centers and funding agencies such as the National Science Foundation requiring data sharing, many academic libraries have already begun to provide e-science support. This report can serve as a

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source of information for libraries interested in comparing activities to others and perhaps even a resource for finding areas of potential library collaboration.

Honorable Mention (Poster #154)

Authors: **Joanne Marshall**, AHIP, FMLA, Professor, School of Information and Library Science, University of North Carolina, Chapel Hill, NC; **Julia Solenberger**, AHIP, FMLA, Library Director, University of Rochester Medical Center, Rochester, New York

Title: Results of the Value of Health Library and Information Services Study

Abstract:

Objective: The purpose was to conduct a large scale, multi-site study to assess the impact of library and information services on patient care using methods developed in the Rochester Study.

Methods: This joint project of the National Network of Libraries of Medicine, Middle Atlantic Region (NN/LM MAR) and the University of North Carolina at Chapel Hill used several data collection methods:: 1) two initial focus groups of librarians who had interviewed hospital administrators about the perceived value of library and information services; 2) a web-based survey of physicians, residents and nurses at 56 library sites serving 118 hospitals; and 3) 24 telephone interviews of health professionals designed to further explore the value of the library and the librarian. Health professionals were asked to base their responses on a recent incident where they had sought out information for patient care that was not available in the patient record, electronic medical record system or lab results.

Results: There were 16,122 respondents (5,379 physicians, 2,123 residents and 6,788 nurses). Three quarters said that they had definitely or probably handled some aspect of the patient care situation differently as a result of the information. Among the changes reported were: advice given to the patient (48%); choice of drugs (33%); choice of other treatment (31%); diagnosis (25%); and choice of tests (23%). Almost all of the respondents (95%) said that the information resulted in a better informed clinical decision. Reports of adverse events avoided as a result of the information included: patient misunderstanding of the disease (23%); additional tests (19%); misdiagnosis (13%); adverse drug reactions (13%); medical errors (12%); and patient mortality (6%). Interview data revealed that the role of the librarian has become more diverse since the original Rochester study, with librarians playing

key roles in developing and managing information systems as well as instruction and provision of expert searches.

Conclusions: Like the Rochester Study, this larger scale multi-site study confirmed that the use of library and information resources has a significant impact on patient care outcomes. In particular, impacts were found on the advice given to patients and factors related to patient safety and avoidance of medical errors.

Honorable Mention (Poster #130)

Authors: **Helen Look**, Collection Analyst, Health Sciences Libraries, University of Michigan, Ann Arbor, MI

Title: Mapping the Health Economics Literature

Abstract:

Objectives: To identify and analyze the health economics literature as part of an overall research project to map the public health literature. The purpose of the study is to determine the core journals used in health economics, the currency of cited references used in the literature, and the online databases that provide the greatest coverage for the cited journal references.

Methods: Following the protocol set by the Public Health Mapping Project, the researchers selected three health economics journals as source titles. These titles are Health Economics, Inquiry, and Journal of Health Economics. All 70 issues of these journals published from 2008-2010 were manually reviewed, yielding 645 citing articles and 22,895 cited items. A random sample of 1,020 items drawn from the overall pool of cited items served as the data source used to identify the most frequently cited publication types (book, government document, journal article, and miscellaneous) and their age at time of citation. A second sample of 1,002 items drawn from the 16,442 cited articles was the source for identifying the most cited journal titles and the breadth of journals consulted in health economics research. The cited journal titles were sorted into three zones based on Bradford's Law of Scattering. The top journals were subsequently checked for coverage in major databases.

Results: Journal articles represented 71% of the total cited items sampled, with miscellaneous (13%) and book (12%) as the next most frequently cited publication types. Of the overall cited items, 34% were from 0-5 years old and 11% were more than 20 years old at the time they were cited. The publication date for cited items ranged from 1937-2010,

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with a mean date of 1999, median date of 2001, and mode of 2005. A statistically significant association ($P < 0.001$) was observed between cited item age and publication type. The pattern of citing recent publications was evident when analyzing certain publication types such as government documents (49%) and miscellaneous (57%). Surprisingly only 26 of the cited items (2.5%) included a URL. Further investigation is needed to determine the impact of freely accessible online resources. The cited journal article sample contained 1,002 citations from 346 journals. By applying Bradford's Law of Scattering, three zones of journal articles were created of approximately equal number of citations. The nine journal titles in Zone 1 accounted for 32% of the cited literature even though they represented only 3% of the total cited journals. The journal with the most citations was the *Journal of Health Economics* which had 116 (12%) of the total citations. All of the top cited journal titles are currently indexed in Medline, Scopus, and Web of Science but the years of coverage are not complete within all the databases. The majority of the Zone 1 titles are included in the Core Public Health Journals project, version 2.0 with five titles listed as "essential core" and two as "research level core." As anticipated, only the economic specific titles (*American Economic Review* and *Journal of Econometrics*) were not listed as core public health journals. Five of the nine core health economics titles are listed for the version 3.0 of the subject Health Services Administration in the Core Public Health Journals project. From reviewing the cited journal titles, the health economics literature continues to draw from a range of subject disciplines including but not limited to medicine, economics, and health care services.

Conclusions: This study revealed that the health economics literature relies heavily on journal articles and that over a third of the cited items were published materials less than five years old. Overall, nine core health economics journals accounted for over a third of the sampled journal article citations. Collection development and publishing decisions can be informed by reviewing the cited journal titles sorted into the three zones based on Bradford's Law of Scattering. The published health economics literature draws primarily from the subject disciplines of medicine, economics, and health care services. Researchers should be encouraged to search multiple databases to fully cover the health economics literature. The databases that provide the greatest

coverage for the core health economics journal are Medline, Scopus, and Web of Science.

Honorable Mention (Poster #130)

Authors: **Chang Hui-Chin**, Director, Library, School of Public Health, Chung Shan Medical University Hospital, Taichung, Taiwan; **Chiu Tzu-Heng**, Associate Director of the Library, Taipie Medical University; **Wu Chih-Lung**, School of Medicine, Chung Shan Medical University, Taichung, Taiwan; **Tsai Chung-Hang**, Department of Pathology, Chung Shan Medical University, Taichung, Taiwan; **Lin Fang-Yu**, Evidence-based Medicine Center, Chung Shan Medical University, Taichung, Taiwan; **Lin Long-Yau**, Department of Obstetrics and Gynecology, Chung Shan Medical University, Taichung, Taiwan

Title: A Study of Physicians' Attitudes, Knowledge, Skills, and Educational Needs in Evidence-Based Medicine

Abstract:

Objectives: The objective of this study was to survey the attitudes, knowledge, skills, and educational needs of the physicians for evidence-based medicine (EBM). The research findings may be used as guidance by the educator for EBM curriculum planning.

Methods: The physicians of a medical center at the central Taiwan were surveyed with self-structured questionnaire. The 323 questionnaires were dispatched, with 235 questionnaires returned; the response rate was 72.75%. The questionnaire composed of 6 domains: (1) attitude toward EBM, (2) understanding of EBM terminology, (3) skills of EBM practice, (4) demand of EBM learning, (5) background of physician, (6) familiarity of resources. Cronbach's alpha ranged from 0.9-0.972 for each categories. Student t test, Pearson correlation, Anova, and multivariate regression were used for analysis.

Results: Most physicians had a positive attitude toward EBM. In knowledge and skills of EBM, the average score in physicians' understanding of EBM terminology was 3.55-0.80 (5 for fully understanding, 1 for not understand at all). And in physicians' skills of EBM practice, item of appraisal of research articles, and clinical application of EBM got the lowest score. The educational demand of EBM for physicians was "Statistics." And PubMed was the most frequently used resource for evidence searching. The physicians in the medical and surgical depart-

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ment have significant relatively higher score in the attitudes, terminology understanding, and skills of EBM.

Conclusions: (1) The knowledge and skills of EBM of physicians are variegated; there is room for improvement. (2) We should provide more courses on statistics, efficacy evaluation, and study design. (3) In general, physicians still lack confidence in applying the EBM to clinical practice. We suggest that EBM learning should be incorporated into daily work. (4) We should improve the education of EBM more aggressively for physicians other than those from the medical and surgical department.

Hospital Librarian Research Award (Poster #63)

Authors: *Amy E. Donahue, AHIP, Medical Librarian, Resource Center Library, Aurora Medical Center, Grafton, WI.

Title: Emergency Preparedness and Librarians: A Match Made in...Hospitals

Abstract:

Objectives: The objective of this poster is to look at whether hospital librarians are actively involved in their organizations' emergency and disaster preparedness activities and to explore what those roles can and might look like to encourage further involvement. Involvement may range from sitting on committees to finding and providing related information to community outreach and everything in between.

Methods: This will be a mixed-method project, consisting of a case report, a narrative review of the literature (including gray literature), and a descriptive survey. The case study will be the author's experiences with her hospital emergency preparedness committee and the roles she has played since getting involved, including literature searches for emergency preparedness activities and working on outreach to both hospital employees and community members. The literature review will build off of Featherstone et al.'s Journey of the Medical Library

Association paper, "Library Roles in Disaster Response: An Oral History Project by the National Library of Medicine" (PMID: 18974811) and will look specifically at the roles hospital librarians are playing in their organizations. The survey will be sent out over MEDLIB-L, DISASTR-OUTREACH-LIB, and the MLA Hospital Librarians email discussion list to collect responses from hospital librarians on whether they are currently involved with emergency preparedness activities within their organizations, and, if so, how.

Results: The author's own experience with her emergency preparedness committee over the course of her first year of employment has served as a case report. The literature review led to more than ten articles in MEDLINE, seven articles in CINAHL, and a number of reports and anecdotes in the gray literature describing ways hospital librarians are currently involved in disaster and emergency preparedness, response, and recovery activities as well as potential roles. The final survey results will be made available in full on the poster itself, but the preliminary results indicate that around a third of respondents are currently involved in emergency or disaster roles at their hospital, that a number play multiple roles, and that often even those librarians who are not actively involved have still identified or been assigned a role should a disaster affecting their organizations occur.

Conclusions: Hospital librarians can be and are involved with emergency/disaster preparedness, response, and recovery. Moreover, opportunities exist for continued and increased involvement, and while many would gladly volunteer, some librarians may be asked to take on these challenging and rewarding roles even if they have not expressed interest. By documenting and connecting the collective hospital librarian experience, perhaps we can all be better prepared to respond to our hospitals' and our communities' needs in this vital area.

WINNERS OF THE RESEARCH SECTION SHUFFLE DRAWING AT MLA 2012

Kristine Alpi, MLS, MPH, AHIP

William Rand Kenan Jr. Library of Veterinary Medicine—North Carolina State University

Thank you for participating with the Research Section at MLA! We appreciate ALA Editions' donation of the book *Research Skills for Library and Information Workers* which was won by **Ann Madhavan, Public Health Seattle-King County**.

Six additional prizes were free consultations to discuss ideas or projects with an experienced Research Section member-mentor. Congratulations to the winners!

- **Lorely Ambriz, Pan American Health Organization**
- **Wanda Anderson, Boston College**
- **Maria Barefoot, Youngstown State University**
- **Emily Josephine Hurst, NN/LM South Central Region**

- **Margaret Grasberger Lindem, University of Pennsylvania**
- **Claire Sharifi, University of San Francisco**

They will be connecting with Research Section members:

- **Julia Esparza, Louisiana State University**
- **Martha Earl, University of Tennessee-Knoxville**
- **Kristine Alpi, North Carolina State University; T. Scott Plutchak, University of Alabama-Birmingham**
- **Marie Ascher, New York Medical College.**



MLA CHAPTER NEWS

MIDCONTINENTAL CHAPTER OF THE MLA RESEARCH AWARD WINNERS

MC/MLA Research Committee

At the MCMLA 2012 Annual Meeting in Kansas City, the Research Committee awarded the following:

Best Research Poster

“Changing our communication game plan.” Claire Hamasu (University of Utah), John Bramble (University of Utah), Marty Magee (University of Nebraska)

Best Research Paper

“Role of libraries in disaster relief.” Kalyani Ankem

(Emporia State University), Gwen Wilson (Washburn University), Jayme Johnson (Emporia State University)

Most Innovative Paper or Poster

“Reverse information specialists in context? Bringing users back into the library by creating research and innovation centers and customized support and tools.” Jean Shipman, Joan Gregory, Abby Adamczyk, Peter Jones, Shelli King (University of Utah)



SOUTH CENTRAL CHAPTER OF THE MLA RESEARCH AWARD WINNERS

Jack Bullion, SCC/MLA Research Committee Chair

Library, UT Southwestern Medical Center at Dallas

The SCC/MLA Research Committee presented the following awards at the 2012 Annual Meeting in Lubbock, TX:

CONTRIBUTED PAPERS

1st Place (\$300)

“School nurses: An Information Needs Assessment Pilot Project.” April Schweikhard, OU-Tulsa Schustermann Library

2nd Place (\$200)

“Entry-level Academic Health Sciences Librarians: A Discovery of Professional and Personal Competencies.” Jodi L. Philbrick, Ana D. Cleveland, University of North Texas

3rd Place (\$100)

“Information Prescriptions: A Literature Review and Meta-Analysis.” Michelynn McKnight, Louisiana State University

Honorable Mention

“Christmas Disease, Mozart Ear, and the Stroganoff Method: the Humanity and Hassle of Medical Eponyms.” Daniel E. Burgard, University of North Texas Health Science Center

Posters

1st Place (\$200)

“Maintaining Subscriptions Beyond The Core Literature: That’ll be the Day.” Heather K. Moberly, Oklahoma State University; Jessica R. Page, Ohio State University; Gregory K. Youngen, Indiana State University; Barbara Hamel, University of Wisconsin-Madison

2nd Place (\$100)

“Expanding Library iPad Instruction: Developing and Analyzing a Mobile Technology Curriculum for First Year Medical Student.” Michele Whitehead, University of North Texas Health Science Center

3rd Place (\$50)

“The Role of Tasks in the Internet Health Information Searching of Chinese Graduate Students.” Della Pan, Ana D. Cleveland, University of North Texas

Honorable Mention

“Rave Renovations: The Domino Effect of Raising an Active Learning Center.” Susan C. Steelman, Mary Ryan, Janice Hart, Daphne Hyatt, University of Arkansas for the Medical Sciences

