

Medical Library Association 2015 Annual Meeting Paper Abstracts



MLA'15

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WITHOUT LIMITS**

May 15-20, 2015 • Austin, TX

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Any unsolicited abstracts for the annual meeting undergo a process of blind peer review. Abstracts of papers intended for section programs are reviewed by members of a panel of reviewers from the sections sponsoring the programs. The final decision on program speakers rests with the section program planners.

Sunday, May 17, 4:30 PM – 5:55 PM
Room: Austin Convention Center, Level Four, Ballroom E

2015 National Program Committee

Limitless Possibilities: How Are You Pushing Your Limits?

A Day in the Life of a Medical Student: Applying Ethnographic Methods in Academic Health Sciences Settings

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Objectives: Six regional academic health sciences libraries collaborated to apply ethnographic methods previously used to study undergraduate populations to better understand the information needs and behaviors of third year medical students. The two-fold objective was to determine the feasibility of employing ethnographic methods as a group and to gather data applicable to each unique institution as providers of clinical information.

Methods: A “mapping study” examined how fledgling physicians spend a day while on rotation. Seven to fourteen students were recruited at each institution. Participants were provided maps to log movements (location and time) during a day on rotation. Students met with librarians the following day for recorded interviews. With maps as prompts, interviewers explored students’ activities, focusing on information gathering and use. Librarians then coded transcripts for concepts: information tools, devices, obstacles encountered, library awareness, time management, and “learning to be a doctor,” etc. Coded transcripts are being analyzed to identify themes in information seeking and use, including similarities and differences among institutions. A National Library of

Medicine sub-contract award enabled the collaborating libraries to hire an anthropologist consultant to advise about study design, interviewing techniques, and data analysis.

Results: The glimpse into a day in the life of sixty-nine third year medical students allowed us to see how information discovery, retrieval and use take place in a fast-paced environment. Participants most often needed a quick, factual answer in a hectic clinical setting and relied on general web resources and mobile devices. A medically oriented mobile app was commonly a next step. When more time allowed, the participants would return to clinical issues from earlier in the day for further exploration in more academic and authoritative resources. Participants also spend a lot of time viewing and contributing to the electronic health records of the patients. Factors leading to selection of particular information tools include speed, convenience, lack of need to login, recommendations by trusted authorities (library, residents, attending physicians), availability on a particular device, organization and presentation of the information in a useful way, and more. The most commonly occurring barrier to use of information was lack of wireless or mobile phone network coverage in some clinical settings.

Conclusions: The use of an ethnographic method was successfully adapted for use in a clinical medical environment. The data gathered continues to be reviewed and analyzed and has already provided information used for planning and decision making.

E-Channel: Forging into the Innovation Dissemination Wilderness

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Objectives: To push beyond the boundaries and constraints of traditional publishing avenues by creating a unique venue for capturing and disseminating creative scholarly output related to innovation regardless of field that surpasses the parameters of results typically reported in the published literature.

Methods: An academic health sciences library is collaborating with partners to create unique opportunities for innovators to share their creative output, disseminate their results, and receive academic credit for their contributions. Building on the recommendations of a consultant's report examining nontraditional publishing opportunities, library faculty and staff met to discuss ways of addressing the lack of dissemination options for innovative work such as process improvements, new technologies, brainstormed ideas, digital therapeutics (health applications and games) and other similar projects – both successes and failures. The decision was made to create a nontraditional platform, the e-channel, to collect and publicize the work of innovators across many disciplines, but particularly the health sciences. A partnership between gamers, library faculty and staff has created a multimedia platform that solicits and disseminates the work of innovators from various organizations and disciplines.

Results: By early 2015, game designers had produced an online multimedia platform (the e-channel) consisting of multiple “stations” or categories of content, including innovations in education, research, and healthcare. Library faculty and staff had collected, described, and published materials in various formats including A3 Lean project templates, videos, IP/process templates related to the development of therapeutic games and apps, and the process, products, and experiences of student medical device competitions. Additional partnerships and e-channel publishing agreements are being developed between the library and numerous internal departments and external organizations.

Conclusions: The need to rapidly share the results of innovative projects and the lack of publishing forums for creative scholarly output inspired the Library to develop a reputable channel where innovators can disseminate the results of their work. Through e-channel, inventors at universities and beyond will be encouraged to share their innovative results to facilitate knowledge translation and entrepreneurial education.

Boot up Your Lifelong Learning: Community Colleges and the National Network of Libraries of Medicine (NN/LM) Outreach Initiative

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Objectives: This paper describes how one community college pushed the limits and collaborated with their regional medical library to offer educational opportunities in support of the 5 Year NN/LM Community College Outreach Initiative.

Methods: A community college hosted summer "boot camps" (professional development conferences) for surrounding medical librarians and/or information professionals, allied health professionals and students, and community college librarians on National Library of Medicine (NLM) resources in June 2013 and July 2014. The staff of the NN/LM Regional Medical Library taught the classes. Content from the classes focused on NLM resources that support community college librarians and allied health programs; emerging technologies; and measuring the impact libraries have on their institutions. All participants received an evaluation sheet on which they rated the class and provided recommendations. For future recommendations, the community college conducted a survey from the June 2013 boot camp participants as well as those who did not attend.

Results: The June 2013 boot camp had 57 participants; the July 2014 boot camp had 71 participants. Based upon the June 2013 survey results, the July 2014 boot camp featured a Community College Professional Development Award and speakers.

Conclusions: This paper will discuss the information needs and settings of community college librarians, especially those who support the allied health science programs and the NN/LM's 5 Year Outreach Initiative to Community Colleges. It will also discuss the various aspects of the program, from needs assessment to promotion, that made these professional development conferences a success.

Establishing an Information Infrastructure for an International Online Collaborative Degree Program

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Objectives: To describe how librarians designed and implemented a unified support infrastructure across three university libraries for an international, online program in addiction studies, including developing and integrating addictions-specific information literacy education throughout the curriculum.

Methods: The six-year-old program is a collaboration between three universities on different continents. The program leads to an M.S. in Addiction Studies through eight courses over 12 months of full-time or 24 months of part-time work. Prior to this project, students had access to information resources and librarians from all three libraries separately; however, the infrastructure was not organized to efficiently support student learning. Librarians established a plan to engage librarians at partner universities, collect and curate library resources appropriate to the curriculum, create a single point of access to resources from all three libraries, and create online learning

modules to support the attainment of the addictions-specific information literacy standards. Evaluation will be by pre- and post-survey of student perceptions of library support, feedback on usability of online library, and a pre- and post-test assessment of information competency in a second phase.

Results: In-person organizational and planning meetings with librarians and constituents were held at all partner schools. Despite the success of these meetings, no memorandum of understanding between the libraries was created because it was felt that an agreement at the university or programmatic level would have more impact.

Librarians mapped curriculum content and assignments to existing information literacy standards, and created related learning modules using Blackboard features.

A virtual library was created using LibGuides from Springshare. Libguides was chosen for its accessibility and the ease of organizing and connecting to disparate information resources. Creating the library and organizing the content was made easier by fact that all partner institution libraries use LibGuides and Ex Libris Primo. The library has already seen significant traffic since its launch, with most visitors looking for either articles of grey literature sources.

Conclusions: This is one of the first attempts to coordinate library services for an international online degree program. We connected libraries on three continents to provide better services to global online students, and laid a foundation for single-point access to resources through all three schools. While the virtual library has been well received, it will take time to adjust content and format to completely address students and program needs. Creating learning modules within the current course management software allowed seamless organization and embedding into program courses. We recommend involvement in early discussion and planning meetings for similar programs. Additionally, we found program faculty to be pivotal in this setting, as the one group capable of ensuring that library tools and resources are accessible to students. Finally, we learned that, due to the scope and logistics of these programs, librarians must be ready to work at university level to produce a lasting impact.

Using LEGO™ Bricks to Teach Standards Development and Metadata Principles to First-Year First-Semester Undergraduates in an Informatics Survey Course

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Objectives: This paper describes an approach to teaching standards development and metadata principles using a combination of assigned advance reading, an individual in-class writing exercise, a team-based learning activity, and a debriefing discussion. First semester first year undergraduate students majoring in Biomedical Informatics are required to take a two-credit survey course taught by a librarian. The course introduces a range of concepts foundational to the discipline, including principles of standards and metadata, records management, computer science, cognitive science, statistics, and ethics.

Methods: Students were assigned advance reading which discussed the importance data standards in healthcare and the processes used to develop these standards. During class, students

first completed a short individual writing assignment and then were assigned to a team. Each team was given an object assembled from LEGO(tm) bricks and charged with developing both a standard for description and a standard for assembly. These standards were then used to create an encoded set of instructions such that students on another team could reproduce the object. After testing their standards by giving them to another team, teams then brainstormed a list of metadata elements (that is, qualities of the LEGO(tm) pieces) they considered when designing their standards. Students then commented on their experiences and results in a class-wide debriefing discussion.

Results: Review of students' individual writing assignments and general themes drawn from the post-activity debriefing discussion were used to determine the impact of the instruction. Students were able to articulate a range of complex ideas, including how the data present influenced the choice of metadata elements; the choice to use either pre- or post-coordination during standards development; issues related to the use of jargon; and the importance of usability testing.

Conclusions: The opportunity to develop standards and identify metadata elements in an area where they had clear domain expertise deepened the students' understanding of a range of issues related to the uses of standards and metadata in biomedical informatics, healthcare, and research data management.

Sunday, May 17, 4:30 PM – 5:55 PM
Room: Austin Convention Center, Level Four, Room 18A

Cancer Librarians Section

Growing ORCID: Enhancing the Scholarly Communication Landscape

ORCID Implementation

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ORCID (Open Researcher and Contributor ID) offers a solution to name ambiguity within the publishing world, as well as a method for scholars to maintain a professional record of scholarly activities. The Georgia Regents University Libraries facilitated the adoption and integration of ORCID throughout the GRU campus community by actively engaging faculty and graduate students, as well as integrating ORCID into key university systems.

The library collaborated with the University's Department of Human Resources (HR) and BioMed Central to enhance the adoption and integration of ORCID identifiers in university systems, including the institution's digital repository, Scholarly Commons, and the University's Human Resources Management System (HRMS). The library has also begun to focus on educating graduate students on the benefits of ORCID as they begin to build their research portfolio. Librarians can assist their institution in improving research information infrastructure and ORCID is unique because it is the only researcher identifier integrated into grant and manuscript submission systems. This project benefits researchers and the University by increasing the adoption and use of ORCID identifiers and supporting efforts to reduce confusion in regards to common or international names. This is especially important when scholarly productivity has a direct impact on promotion and tenure.

ORCID integration in Scholarly Commons was completed in September 2014. Successes and challenges along with the librarians' educational efforts to introduce ORCID will be reviewed.

Planned ORCID Implementation @ New York University School of Medicine

Neil Rambo

Director, NYU Langone Medical Center, New York, New York

There are three key motivating factors for why we planned an ORCID implementation at the New York University School of Medicine:

- improve accuracy and comprehensiveness of faculty bibliography database

- increase utility of faculty profiles
- improve utility of faculty productivity/impact analytics

Our ORCID implementation impacted our current SoM faculty and our postdoctoral and graduate students. This project also included many partners - Medical Center IT, Research IT, Clinical & Translational Science Institute, and Strategic Planning & Business Development, to name a few. Developing an on-boarding process and workflows for new, current, and faculty leaving the organization were important to our success and this presentation will focus on sharing how we accomplished our goals and more importantly what lessons we learned along the way.

Cultivating ORCID at the University of Michigan

Merle Rosenzweig

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At the University of Michigan (UM) there are approximately 23 faculty members named "J. Lee," 19 named "J. Kim," and 11 named "S. Smith" — all of whom can be faced with the possibility that their work will be confused with that of another researcher with the same or a similar name. At a large academic institution such as UM, researchers need a way of ascertaining that their work is discoverable and linked to their own research activity and published output. The ORCID initiative, launched on October 16, 2012, provides a foolproof method of distinguishing and disambiguating similar author names. In December of 2012, the UM Library signed a Member License Agreement with ORCID, thus making us an early adopter. As an ORCID Ambassador at UM, I have been involved in the adoption and implementation of ORCID both by our individual researchers and with various units and systems across campus. This presentation describes the stages of introducing ORCID to our academic institution.

Sunday, May 17, 4:30 PM – 5:55 PM
Room: Austin Convention Center, Level Four, Room 18C

Collection Development Section

The Agile Library: Sustainable and Thriving Collections

Born Digital: Opening Day Collection for a Newly Founded Medical School

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Emma O'Hagan

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Objectives: What if you were given the opportunity to build a new health sciences library from scratch? Where would you begin? This paper discusses the successes and challenges in assembling a new virtual health sciences library collection for Western Michigan University Homer Stryker M.D. School of Medicine (WMed) in Kalamazoo.

Methods: The new medical school is a collaboration involving Western Michigan University (WMU) and Kalamazoo's two teaching hospitals, Borgess Health and Bronson Healthcare. It is a private nonprofit corporation supported by private gifts, clinical revenue, research activity, future tuition from students, and endowment income. This unique setup required the new medical library to be built from the ground up, and seeks out resource sharing options with its partner libraries when possible to support its startup. Unlike other developing health sciences libraries, where there was an existing academic or hospital library to build upon, the WMed library is a wholly separate entity from the academic campus with its own IP ranges, systems and staff.

Results: The librarians were successful in quickly launching a virtual medical library collection in less than eight months. Through partnerships with the libraries at Borgess Health, Bronson Healthcare, and WMU, the librarians identified content of shared interest partnered in resource sharing agreements. Mainly, this consisted of aggregated full-text content or publisher packages. Both un-mediated and mediated article-demand services were established to access content not assessable through subscriptions or the Open Access repositories.

The use of demand-driven systems offered more possibilities to procure content and quickly match offerings at established medical schools at a fraction of the cost.

Conclusions: The electronic journal collection offers access to over 11,000 journals in the biomedical sciences. Library users have access to journal content on demand at no cost. The design of the new virtual medical library offers maximum access to content through demand-driven systems, and collection size and title availability rivals established collections at much larger medical-research institutions.

Collection Development through a Personal Digital Assistant (PDA) Model

Harold Bright

Electronic Resources Librarian, A.T. Still University of Health Sciences, Mesa, Arizona

The A.T. Still Memorial Library initiated the 3-Use PDA model from Rittenhouse in September 2013. Gathering COUNTER statistics, comparative budgetary analysis and cost analysis, the library wants to determine the effectiveness and quality of this PDA model. We gathered usage statistics (COUNTER and vendor supplied statistics) and compared cost per use versus our more traditional subscription collections.

Benefits: large, diverse collection available for university use; 3 click trigger method allows use of material for one-off (or two of) use and discovery; librarians decide which titles to purchase; purchased collection is heavily used.

Costs: Time involved is greater than traditional collections (about 1-2 hours biweekly); PDA funds did not last entire year (budget issues); do we own it, do we not own it.

Swetsing Bullets: Managing Library Collections in the Face of Subscription Agent Bankruptcy

Megan Rosenbloom, AHIP

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Objectives: The author had assumed her new collection development position a few weeks prior to her library's subscription agent declaring bankruptcy, leaving her without access to her annual journal budget. This paper shares the teachable moments through this journey and how other libraries can avoid future situations like this one.

Methods: This paper will compare previous bankruptcies affecting libraries and also show how the Swets bankruptcy was different. The paper will share the author's experiences in trying to navigate a very difficult situation while brand new on the job and how what she learned can be instructive to other librarians. Themes addressed include the perils of international business law, the importance of back channel communications, considerations for choosing new agents and evaluating current ones, lessons learned from the business literature, and ways libraries can protect themselves in the face of vendor financial collapse.

Results: The subscription agent model is changing rapidly, and collection development librarians

find themselves increasingly responsible for protecting their library's financial liability while maintaining service efficiently. Trust in longstanding business relationships is not sufficient for the financial stability of the library in this evolving environment and librarians must turn a critical eye towards their business relationships to assess their future viability.

Conclusions: Lessons from the Swets bankruptcy and others like it, as well as those from the non-library business literature, can forge a path towards best practices in subscription vendor relations and mitigate library risk.

Consumer and Patient Health Information Section

Pets and People

From Talking Dogs to Personalized Medicine: The Weird and Wonderful History of Inheritance and Pharmacogenomics from Pups to People

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Objectives: Dog owners and breeders have long known that physical characteristics in dogs may signal response to medication or propensity for disease. It is only in relative recent history that these characteristics have been traced to specific genomic markers. This paper is a historical primer on the correlation between genotype and phenotype in dogs and how they inform pharmacogenomics in humans.

Methods: The importance of the sequencing of the dog genome was investigated, as well as an explanation as to why the dog genome was sequenced earlier than other companion animals such as the cat or horse. The characterization of the dog genome was traced through published literature to construct a timeline of advances in canine genomics. Dog breed specialty web pages were also searched to find details on the depth of knowledge of inheritance and pharmacogenomics for specific breeds. Medical literature was searched to discover examples of genetically targeted cures in dogs that may provide clues for similar treatments in humans. Key findings and milestones will be highlighted.

Results: This is not a research paper, so results are not applicable.

Conclusions: The dog represents a model organism with greater somatic variety than almost any other species. Selective breeding has produced a vast array of character traits in dogs, some of which are now recognized as having distinct genetic loci. The dog also has served as a model for pharmacogenomic therapies in specialized drug treatment that have helped to inform pharmacogenomic advances in humans. As both a companion animal and as a model for specialized medical intervention and understanding the heritability of traits, the dog is truly a best friend and ally.

Raising the Ruff: Establishing, Developing, and Evaluating an Animal-Assisted Therapy Dog Program at a Medical Library

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Objectives: Animal assisted therapy (AAT) programs are increasingly popular in academic and public library settings. This paper examines the first two years of an academic medical library program that provides visits from certified therapy dog teams and an educational speaker series. The library's experiences in planning, implementing, and refining the program are discussed.

Methods: Setting: The setting is an academic medical library on a professional health science center campus with a current FTE of approximately 2,100 graduate students. Population: Program participants include biomedical science, medical/clinical, and public health students in various stages in their graduate education, faculty, campus staff, and the general community. Intervention: Development of the program included many phases of research, a proposal presented to library administration, conducting interviews and site visits with established programs, seeking campus permissions, establishing a library committee, reaching out to various volunteer groups in the area to collaborate, and promoting events. Exposure: In order to educate and prepare students and practitioners to incorporate therapy dog groups into practice settings, visits with certified therapy dogs in the library during designated time periods were provided initially. After establishing the program for one year, a speaker series component was added.

Results: The Paws committee solicits feedback via comment cards at each of the events. The participants are asked to select one of the following options to rate the event: a) The dogs were (P)AWESOME! B) This event was pretty good. 3) Meh, it was ok. 4) Did not care for the visit. There is also a section on the card where participants can enter any comments they have about the event. The program has received an overwhelmingly positive response from the campus community and many of the participants have requested more offerings throughout the year. Future plans to evaluate the program with focus groups in order to gather more substantial quantitative data are currently under consideration.

Conclusions: Animal assisted therapy visits in an academic or medical library environment can be beneficial to a variety of audiences including students, faculty and staff. One of the key components of these visits includes education of current and future healthcare practitioners and public health workers in incorporating AAT into a variety of health practice environments. The positive reception of this program supports future research and further program development related to AAT.

Service and Therapy Dogs in an Academic Setting

Anna E. Schnitzer

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Objectives: Our objectives in this annual activity are to raise consciousness about and reinforce the animal-human bond with the intent of making the academic, hospital, and surrounding local community feel comfortable with and appreciative of therapy and service dogs.

Methods: Our methods of raising consciousness about the animal-human bond include participation along with a professor from the University of Michigan School of Social Work, in a mini-course presented annually in the summer on the Animal-Human Bond. My role consisted of providing a lecture focusing on different types of service dogs, describing breeds and their various roles in helping human beings. In addition, for the past ten years, we have invited various service and therapy dog organizations (e.g., Paws with a Cause: Canine Companions; Leader Dogs, Therapaws, etc.) to come to campus over two days in October, to interact with members of the community, especially students and hospital patients. In conjunction, with this activity, we have established a yearly lecture on the animal-human bond, complete with video re-enforcement and a demonstration by a client, his/her service dog, and their trainer.

Results: Our invitation to one organization ten years ago resulted in a growing number of dogs every year accompanied by enthusiastic foster parents, as well as trained dogs for individuals with disabilities, all of which is a wonderful learning experience for our campus and surrounding community. We established four venues for dog viewing (and patting) around campus and in the hospital as word spread and interest in interacting with the dogs increased. We also fielded questions as well as offers from individuals to enroll their own pets in the therapy dog program or to foster and socialize puppies until they were old enough to undergo training as service dogs.

Conclusions: By presenting positive, detailed information about the training and ultimate helpfulness of various types of service and therapy dogs and by providing "hands-on" interactions with these canines, we have promoted the idea of bonding between dogs and people, both emotionally and as valuable assistants to individuals with disabilities.

Bonding with Therapy Pets to ImpRUFF Student Morale

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Objectives: As health sciences students prepare for midterms, finals, boards, and other exams, their stress levels tend to increase exponentially. To help alleviate this, an academic library coordinates with a local therapy animal organization to bring therapy pets into the library during these key times.

Methods: To determine best practices and potential partnerships, librarians contacted on-campus units that already invite therapy pets into their spaces. The other units suggested a local animal

therapy organization and agreed to cross-promote animal therapy events. The library conducted informal mini-surveys, using interactive smart boards and social media, to determine students' interest. Based on positive feedback, librarians collaborated with key faculty and academic administrators to identify stressful times throughout the year. The events were advertised by the library and other departments via posters, flyers, display screens, emails, and social media.

Results: The pilot of this project was very successful, with over 60 contacts during the 2 hour period the therapy dog was in the Library. Students expressed their appreciation for having this form of stress relief available. An article highlighting this event was included in the Library's Spring issue, and had 85 views within 3 weeks of its publication. Several more events were scheduled throughout the course of the Spring semester.

Conclusions: Libraries offer a wide variety of services to their users, and are constantly embracing new roles. Inviting therapy dogs to the Library to help alleviate student, staff, and faculty stress is a free, fun, and fulfilling service that libraries should consider including in their range of services.

Sunday, May 17, 4:30 PM – 5:55 PM
Room: Austin Convention Center, Level Four, Ballroom F

Dental Section

Collaboration without Limits: Breaking Boundaries

Breaking into Uncharted Territory: Collaborating on National Institutes of Health (NIH) Public Access Policy Compliance with the Sponsored Projects Administration

Katherine V. Chew

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Objectives: Non-compliance with the NIH Public Access Policy can severely hamper researchers' efforts by delaying awards funding. Facilitating compliance with the policy can be a problematic process, especially across large institutions with numerous colleges, schools, centers and institutes. Collaborating with a department that spans all of these entities can ensure unlimited opportunities to provide compliance support and assistance.

Methods: In early 2013, librarians from the Health Sciences Libraries (HSL) were invited to meet with the training coordinator for the campus-wide Sponsored Projects Administration (SPA) to discuss potential collaboration to help with the potential ramifications of NOT-OD-13-042; the NIH Public Access Policy (PAP) notification concerning the delaying of processing of awards with start dates 1 July 2013. As part of this collaboration, SPA and a HSL librarian would co-present SPA sponsored workshops on the public access policy, an eRA Commons account would be assigned to provide access to the Public Access Compliance Monitor (PACM) and the NIH Manuscript Submission System, public access policy questions, issues and My NCBI /My Bibliography training requests received by SPA would be routed to the librarian and the creation of a detailed Public Access Policy Compliance library webpage that featured library and SPA resources.

Results: Collaboration with SPA began in Spring 2013. A Public Access Policy dedicated HSL email address, public-access@umn.edu, was shared with SPA and non-compliance questions that arrived at SPA were routed to this address for trouble-shooting. Assignment of an eRA Commons account by SPA increased the ability to “diagnosis and treat” non-compliant articles, as it facilitated access to the PACM, NIH Manuscript Submission System and awards view in My Bibliography. A detailed, SPA-user friendly website devoted to the policy, [NIH Public Access Policy & Compliance](#) was developed that included cross-references to resources found on the SPA training webpage. The first co-teaching occurred in November 2013 and followed by co-teaching engagements at the SPA training site, an auditorium based recorded webinar and workshops at departmental in-service training. Coordination with SPA has led to helping NIH investigators campus-wide that would not otherwise have thought to turn to HSL for help on compliance issues -- law, statistics, bio-sciences, chemistry or from the coordinate campuses.

Conclusions: Collaboration with SPA on NIH Public Access Policy compliance has exponentially expanded the services and scope that the Health Sciences Libraries is able to offer NIH investigators in their grant and research efforts, resulting in more research dollars awarded.

Developing a Workflow to Facilitate Data Sharing in a Neuroscience Lab

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Objective: An experimental neuroscientist who receives frequent requests from computational neuroscientists to share his data recognized the need to improve workflow around data sharing and management. The services required to achieve his goals fit in well with the objectives of the institution's library, which was seeking to facilitate data sharing, increase use of field standards, and pilot a lab organization tool.

Methods: Librarians from NYU Health Sciences Library received an NLM Informationist Supplement to assist a neuroscience researcher in identifying and addressing issues of data organization, description, storage, and access. In response to the researcher's stated needs, methods were explored for sharing processed data underlying publication figures through the researcher's website. The librarians examined other forums for data sharing to supplement the figure-based sharing. Existing field standards were examined to determine which would be appropriate to assist the researcher in capturing metadata necessary to facilitate reuse of research data by outside researchers. A lab organization tool in development by the librarians was designed to be customized to field specific standards, and was identified as a way to facilitate the organization and eventual sharing of the data collected by the graduate students and postdoctoral scholars working in the lab.

Results: A methodology was developed for sharing data underlying figures from post review manuscripts on the researchers website, with plans to implement the methodology over the course of the second year of supplement funding, and to refine it so that future publications could be easily uploaded by lab members. The Collaborative Research in Computational Neuroscience Data Sharing website was identified as an ideal venue for data storage and access; it was funded by NSF and would reach the community who typically request the researcher's data. Use of metadata from Neurodata Without Borders (NWB) -- a project developing standards for neuroscience experiments - - was identified as a field standard that would facilitate data description and use by other researchers, and use of the NWB standards in particular would produce a tool that would also be of value to other neuroscience researchers at the institution.

Conclusions: Partnerships between data librarians and researchers can serve to facilitate data

management and data sharing for individual researchers. In approaching such partnerships, libraries should carefully consider issues of scalability. Ideally, such projects should serve to produce tools of utility beyond an individual lab, or to provide an opportunity to pilot potential library services.

Limitless Collaboration: Librarians, Clinicians, and Researchers Partnering to Further National Goals in Sex and Gender Differences and Women's Health Research

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Assistant Director and Bioinformatics Librarian, University of Florida, Gainesville, Florida

Mary E. Edwards, AHIP

Distance and Liaison Librarian, University of Florida, Gainesville, Florida

Hannah F. Norton

Reference & Liaison Librarian, University of Florida, Gainesville, Florida

Nancy Schaefer, AHIP

Reference and Education Librarian, University of Florida, Gainesville, Florida

Librarians collaborated with clinicians and researchers to further the goals of the National Library of Medicine/Office of Research in Women's Health: to increase sex differences research in the basic sciences, and employ innovative strategies to build a well-trained, diverse and vigorous women's health research workforce. This presentation describes collaboration-building, partnership types, and activities surrounding this two-year outreach project.

Methods: The project's funding mechanism required collaborators external to the library to participate. Existing liaison librarian relationships with academic health center (AHC) and main campus faculty were used to quickly develop initial partnerships. Once funded, and as outreach activities (instruction, improving access to resources, facilitating collaboration, dissemination) were planned, additional partnerships were developed using current collaborator endorsement and strategic need. By the end of the project, collaborators came from numerous campus units, representing multiple AHC and main-campus colleges. Collaborators included directors, associate deans, and other senior administrators, as well as teaching faculty and educational program coordinators. Partnerships extended to librarians co-authoring a poster with a faculty member for a national scientific conference, and the team determining the topic of participant projects in a summer course offered by the institution's Clinical and Translational Science Institute.

Results: Through these collaborations with faculty and administrators, the project team met its goals over the two-year funding period. Novel features of the project included working with STEM high school students to increase their awareness of sex and gender differences research and the potential for this as a career choice; integrating into the CTSI's two-week "Introduction to Clinical and Translational Research" course with "sex and gender differences in pain" serving as course theme; facilitating research collaborations through the CoLabs; providing open access publishing funding for UF research publications; and presenting not only to librarian audiences but also at regional and national science conferences. Over the two years, the library hosted three CoLabs, conducted 18 instructional sessions, provided open-access publishing fees for 13 new publications, updated 58 VIVO records, presented at 13 external and 5 internal conferences, and strengthened

the HSCL's collection. Evaluation suggests this outreach project furthered funding agency goals, and evidence presented during NLM's site visit to Gainesville suggests that these collaborations strengthened the relations between faculty and librarian/library.

Conclusions: Biomedical librarians and libraries, partnering with clinical and research faculty and administrators, have successfully developed outreach programs that further the missions of the NIH and other agencies and institutions related to biomedical research and clinical care.

One of the Team: Roles and Competencies for Embedded Data Librarians

Lisa M. Federer, AHIP

Research Data Informationist, National Institutes of Health, North Bethesda, Maryland

Objectives: As researchers struggle to deal with the "data deluge," librarians are branching out to apply their knowledge and skills in support of data management and science, embedded as partners with research teams. This paper will discuss one institution's experience with embedding a data librarian with research teams, including roles for the librarian and necessary competencies to support data-intensive research.

Methods: This paper will present case studies of several partnerships in which the data librarian functioned as a member of the biomedical research team. The data librarian serves as an embedded data informationist and provides advice on data management, assists with computational data analysis techniques, and facilitates data sharing. Discussion will include lessons learned, challenges and successes, and resources for librarians interested in developing advanced competencies for providing comprehensive support for researchers' data needs.

Results: In three different projects, the librarian played a variety of roles crucial to the success of the overall project, including project manager, editor, and data wrangler. Involvement in these projects also proved beneficial for the librarian by providing an opportunity to gain new subject matter expertise, network with researchers, and promote library services.

Conclusions: Researchers may be unaware of the unique skillsets that make librarians excellent partners. Librarians should work to promote their services to researchers and increase their visibility as research partners, as well as gain new skills and expertise that will allow them to provide value-added services in support of biomedical research.

Library Return-on-Investment: Collaborating with Research Administration to Develop a Model for the Health Sciences Library in Support of Research

Douglas L. Varner, AHIP

Senior Associate Director / Chief Biomedical informationist, Georgetown University Medical Center, Washington, District of Columbia

Jennifer C. Kluge

Chief of Staff, Georgetown University Medical Center, Washington, District of Columbia

Nancy N. Woelfl

Professor Emeritus, University of Nebraska Medical Center, Omaha, Nebraska

Jett McCann, AHIP

Senior Associate Dean for Knowledge Management; Director, Dahlgren Memorial Library, Georgetown University Medical Center, Washington, District of Columbia

Linda A. Van Keuren, AHIP

Associate Director for Resources and Access Management, Georgetown University Medical Center, Washington, District of Columbia

Grant Connors

Interdisciplinary Resources Support Librarian, Georgetown University Medical Center, Washington, District of Columbia

Objectives: Libraries are increasingly required to assess the value of services in the global context of importance to users expanding beyond qualitative models to develop quantitative methodologies. This presentation describes library collaboration with Research Administration to develop a return-on-investment model generating data which calculates the dollar amount of grant income earned for every dollar the institution invests in library budgets.

Methods: Dahlgren Memorial Library at the Georgetown University Medical Center plans to refine the established return-on-investment model developed by Luther, Tenopir and adapted for use in health sciences libraries by Woelfl. The return-on-investment dollar amount is derived from a formula based on compilation of discrete data points including approved NIH grant dollars, the number of applications using citations in the reference section of the grant application, the number of citations available via the library collections in the grant application reference section and additional quantitative values to be discussed in the presentation.

Library staff collaborated with a consultant who developed the health sciences library model, the Dean for Research staff and Research Administration staff to arrive at a return on investment calculation which provides a quantitative measure of the impact of institutional investment in library resources and services on grant income.

Results: A pilot study has been conducted with reference sections from six proposals analyzed. The citations were placed into one of 5 categories with respect to availability by the researcher submitting the grant proposal:

Journal articles in electronic format in library collection: 233 (60.36%)

Journal articles in print collection: 18 (4.66%)

Book available in library print collection: 9 (2.33%)

Open access articles available to everyone: 62 (16.06%)

Citations not in the library collections: 67 (17.36%).

Total citations in grant reference sections: 389.

The journal articles, books and open access titles were aggregated into one data point representing 83.42% of citations available in some format to grant submitters.

Conclusions: Historically, library impact studies used qualitative methodology soliciting input from user groups by distribution of surveys to end-users followed by analysis using approaches appropriate for this research design. Library assessment research has evolved recently with

development of quantitative models generating numeric data measuring the value of library services in clinical settings, particularly focusing on librarian participation in patient rounds. This research project describes library contributions to the institutional research by application of a return-on-investment model resulting in a calculation of \$1.76 in grant income generated for every \$1.00 the institution invests in the library.

Sunday, May 17, 4:30 PM – 5:55 PM
Room: Austin Convention Center, Level Four, Room 18B

Federal Libraries Section

Thinking Outside the Box: Revamping and Rethinking Traditional Ideas, Roles and Spaces

As Paper Is No Longer Our Trusted Ally: How Can We Help Our Users Develop a New Transformative Mental Image of Libraries?

Nunzia B. Giuse, FMLA

Assistant Vice Chancellor for Knowledge Management, Director of the Eskind Biomedical Library, Vanderbilt University Medical Center, Nashville, Tennessee

Taneya Y. Koonce

Deputy Director, Vanderbilt University Medical Center, Nashville, Tennessee

Marcia Epelbaum

Associate Director for Patron Education and Training, Vanderbilt University Medical Center, Nashville, Tennessee

Annette M. Williams

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Andrew Dombrowski

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Matthew Dillingham

Health Information Specialist, Vanderbilt University Medical Center, Nashville, Tennessee

Zachary E. Fox

Assistant Director for Administration, Vanderbilt University Medical Center, Nashville, Tennessee

Deborah H. Broadwater

Assistant Director for Collection Development, Vanderbilt University Medical Center, Nashville, Tennessee

Objectives: For millennia, the concept of libraries has been unequivocally linked to images of items in physical form. As libraries transition to virtual collections devoid of paper materials, this evolution necessitates introspective moments of reflection regarding the effect on library users. The purpose

here is to offer insight on how this biomedical library is strategizing and working through this transformative experience.

Methods: Much of the conversation regarding libraries' dismantling of stack areas in favor of digital holdings centers on either space reconfiguration, or discussions of how to make the print collections quietly disappear. Yet, library leaders have not taken the time to explore the more fundamental issue of the mental images that users have had, and still have, of libraries as physical repositories of information. The word "library" is rooted in the Latin word for book, "liber"; this leaves no doubt to the origin of this mindset. Cognizant of the need to consider the impact of the shift to electronic collections on the future of libraries, this large academic biomedical library designed and conducted an iterative staff retreat to strategize how to best create and communicate a new transformative mental image of the library to its users.

Conclusions: Library leadership organized the staff retreat with a focus on four central themes – a) what do we want our library users to know about us during this transformative period? b) where do we want to be as a library/knowledge management team 5-10 years from now? c) how do we define and communicate our "brand", and d) how do we most effectively translate the brand to our online presence? Staff members were divided into four groups with each team including representation from all areas of library and knowledge management services. All discussion points were compiled and analyzed for common thematic elements to aid with establishing strategy implementation priorities. Additionally, an internal working group was created to move forward with the implementation of specific retreat outcomes deemed by the group as helpful for the mental re-engineering of the library image.

Librarian in Disguise: Roles for Librarians in Federal Research

Caitlin Kelley

Embedded Research Informationist, Veterans Affairs, Ann Arbor, Michigan

Objectives: The role for federal health science librarians in research is expanding as the federal government conducts more research that is complex and tech-reliant. In this paper, I will describe the traditional and nontraditional roles for librarians in federal health services research and the best ways to infiltrate research as a librarian in disguise.

Methods: New roles for librarians working independently of a library aren't always obvious. There are some clear paths, like searching or citation management workshops, but there are other less obvious paths that have immense potential to expand the role of information professionals in research. To understand potential roles, informal, unstructured interviews were conducted with key informants and information advocates within a federal research department to find and assess information-related roles and needs in ongoing research process. Based on analysis of interviews, roles were established and tested for viability. Roles included in this phase were: information architect, user-experience designer, and qualitative data collector/coder. Each role was pursued and assessed for long term viability both for librarians and for the institution.

Results: During a six month period, all roles were successfully implemented through project-based work on various research teams. Both web-based roles, information architect and user-experience designer, were advocacy and analytic roles for the information needs of the users. Although some coding literacy was required, much of the work revolved around information sources and presentation of resources. Additionally, an informationists' role in the qualitative research was highly relevant because information professionals have the requisite experience in interviewing,

classification and unbiased interaction with those we serve. Because of this background and perspective, informationists are able to offer a nuanced analysis and synthesis.

Conclusions: There were unique obstacles for each of the proposed roles, but overall success and great potential for librarians in web design and qualitative research that merit further investigation. Each role was deeply reliant on a buy-in from other team members and a strong advocate to ensure placement on the right teams. To bolster ability to gain buy-in, messaging was the most important tool to communicate why a librarian was the best fit for those roles. When these components falter, the success of librarians in these roles also falter.

Strategic Plan to Strategic Action: The Library's Role in Supporting Health Informatics Initiatives

Don P. Jason, III.

Clinical Informationist, University of Cincinnati, Cincinnati, Ohio

Objectives: This paper demonstrates how the University of Cincinnati (UC) Libraries utilized its new strategic plan as a roadmap for providing health informatics support to the UC Academic Health Center.

Methods: Librarians from the UC Health Sciences Library (HSL) wrote a white paper focused on the role of libraries in health informatics (HI) support. The process of writing the white paper informed the librarians on two subjects. One, what was currently being done to support the HI enterprise at their institution. And two, it allowed them to uncover what peer institutions were doing in the realm of HI.

Results: The white paper led to four notable deliverables. First, the UC HSL began offering more one-time classes on clinical research tools and computer software. Second, the UC HSL developed a for-credit class on HI, which will be taught to undergraduates in the UC College of Medicine. Third, an Informatics Lab was created inside the UC HSL. Four, Informationists were hired to build collaborations with departments in the UC Academic Health Center.

Conclusions: Within a year, the UC HSL has transformed a strategic plan into four solid deliverables. This paper shows that a strategic plan is a living and working document. This document is crucial to the development of new services and resources at any HSL. Hopefully, this paper will inspire other HSL's to utilize their strategic plans as catalysts for change and innovation.

Medical Librarians in Practice: Research-Related Activities and Resource Use

Carol L. Perryman

Assistant Professor, Texas Woman's University, Denton, Texas

Methods: An IRB approved, open- and closed-ended survey conducted on Psychdata.com was distributed through national and regional medical library electronic mailing lists, with questions including institutional affiliation, roles, types of support provided, RRAs over the last 2 years, and resources consulted. Cross-tabular analysis using SPSS was used to identify significance and

strength of associations between RRAs, resources, and institutional affiliations.

Results: Although 259 self-identified medical librarians responded to the survey, significance analysis was based on $n=219$ (with 40 dropped as incomplete). Using cross-tabular analysis, significant differences among institutional affiliations was found with respect to 3 RRA variables. For the variable 'have done collaborative research,' a significant (.052) difference among institutions was found. Fifty (22.8%) respondents report having been involved in collaborative research. For those who have 'identified research in support of research or practice,' a significant (.045) difference among institutions was identified. Over 80% of respondents have performed this RRA. Responses to having designed at least one research study are significantly (.000) associated with institutional affiliation. Across all affiliations, 53 (24.2%) report having designed research.

Significant differences were also found among institutions with respect to involvement in project planning (.021), outcome evaluation (.073), and program planning. Ranked from high (1) to low (5) across all respondent and RRA categories, the average reported use of resources ranged from personal experience (1.94), peers (2.12), peer-reviewed literature (2.23), listservs (2.51), information online (2.53), visiting locations (3.32), to consultants (4.53). Significance was identified among institutions and the use of both peer- and non-peer reviewed literature (.017 and .025, respectively), personal experience (.031), and peer consultation (.032).

Conclusions: This study attempts to approach a more granular understanding of medical librarians' involvement in research by deconstructing related roles, stakeholders, activities performed, and resources used. Preliminary analysis has found that in particular, diverse resource use including but by no means limited to peer-reviewed literature is common across affiliations. Although results are not generalizable, findings add to and expand upon prior research, helping to support education and practice in a rapidly-changing environment. Suggestions for further research include whether changes in critical evaluation methods and tools would aid practice-based research activities.

Sunday, May 17, 4:30 PM – 5:55 PM
Room: Austin Convention Center, Level Four, Room 19A

Nursing and Allied Health Resources Section

Put That in Writing: Perspectives from the Editorial Board

Information Sharing and Professional Responsibility: How to Start a Journal and Keep It Going

Carole M. Gilbert, AHIP, FMLA

Collaborative Writing

Joy Don Baker

Editor-in-Chief Clinical Associate Professor, AORN, Inc University of Texas at Arlington, College of Nursing, Watauga, Texas

Writing collaboratively the authors must explore the structure, process, and outcomes of the intended work. This session will explore each of these elements and offer suggestions on determining author order for the manuscript. Writing effectively also means evaluating the work among the author peers and through the peer review process. Understanding in advance the evaluation method the team will evaluate member contribution and division of labor will help solidify and meet the goals of the collaborative writing experience.

Publishing in the Journal of the Medical Library Association: Insights from the Editor

I. Diane Cooper, AHIP

Informationist, National Institutes of Health, Bethesda, Maryland

Sunday, May 17, 4:30 PM – 5:55 PM
Room: Austin Convention Center, Level Four, Room 19B

Research Section

The MLA Research Agenda Systematic Review Project

The MLA Research Agenda Systematic Review Project

Margaret Henderson, AHIP

Director, Research Data Management, Virginia Commonwealth University, Richmond, Virginia

Roy Eugene Brown, AHIP

Research and Education Librarian, Virginia Commonwealth University, Richmond, Virginia

Margaret J. Foster, AHIP

Associate Professor, Systematic Reviews and Research Coordinator, Texas A&M University, College Station, Texas

Mary Lou Klem

Reference Librarian, University of Pittsburgh, Pittsburgh, Pennsylvania

Ana Patricia Ayala

Liaison and Instruction Librarian, University of Toronto, Toronto, Ontario, Canada

A'Llyn Ettien

Head, Technical Services, Boston University, Boston, Massachusetts

Aileen McCrillis

Patricia F. Anderson

Emerging Technologies Librarian, University of Michigan, Ann Arbor, Michigan

Stephanie M. Swanberg, AHIP

Assistant Professor, Medical Librarian, Oakland University William Beaumont School of Medicine, Rochester, Michigan

Sondhaya (Sunny) McGowan, AHIP

Medical Librarian, Scripps Mercy Hospital, San Diego, California

Dave Castelli

Sr. Medical Librarian, Intermountain Medical Center & LDS Hospital, Murray, Utah

Karen Heskett

Brenda M. Linares, AHIP

Librarian and Outready Liaison, UNC Chapel Hill Health Science Library, Chapel Hill, North Carolina

Anne Woznica

Medical Research Librarian, American Academy of Orthopaedic Surgeons, Rosemont, Illinois

Join us for an open forum style presentation to learn about the MLA Research Agenda's Systematic Review project. Fifteen teams have been working on systematic reviews covering each of the questions identified in the new Research Agenda. Come hear from each team to learn about their progress as well as the problems they have identified along the way. Each of the teams were given complete autonomy, which has led to many different approaches. There is much to be learned about both the status of the Research Agenda's systematic reviews, as well as how teams with many members from many geographic locations have worked together.

Monday, May 18, 10:30 AM – 11:55 AM
Room: Austin Convention Center, Level Four, Room 12A

2015 National Program Committee

Lightning Talks: Going Beyond the Limits

3D Printing for Veterinary Medicine

Andrea C. Kepsel, AHIP

Health Sciences Educational Technology Librarian, Michigan State University, East Lansing, Michigan

3D printing has emerged as an exciting, innovative, and cost-effective technology with uses in medicine and academia limited only by one's imagination. The Michigan State University Libraries recently partnered with the College of Veterinary Medicine at MSU to provide 3D-printed osteological models to support the veterinary curriculum. This talk will discuss how our unique partnership was created, why it makes sense for the health sciences library to provide this service, and plans for expansion in the future. Come and see how your library may be able to leverage academic medical modelling needs and get in on the 3D printing game!

Los Angeles County Department of Public Health, Solo Librarian Service Beyond the City Limits

Norma Layton

Medical Librarian II, Los Angeles County Department of Public Health, Los Angeles, California

As solo Medical Librarian for the Los Angeles County Department of Public Health, becoming proactive is the new service that the library implemented in the last eight months. I've become the traveling librarian going to the various Health District and Service Planning areas. We've begun using technology such as Jing, interactive polls, to bring awareness to staff to the resources available at their fingertips and to make workshops more engaging. Librarians still tend to limit themselves to the stereotypical box and it's time for us to let go of those limits.

Making the Grade: Curating the Harvard Medical School Library of Evidence

Paul A. Bain

Research and Education Librarian, Harvard Medical School, Boston, Massachusetts

Ramin Khorasani

Associate Professor of Radiology, Boston, Massachusetts

David Osterbur

Director of Public and Access Services, Boston, Massachusetts

Ali S. Raja

Assistant Professor, Boston, Massachusetts

The goal of the Harvard Medical School Library of Evidence is to create a sustainable public repository of health-IT consumable clinical evidence that will enable and promote broad and consistent evidence-based medicine and improve the quality and efficiency of care. In part a response to recent federal legislation requiring evidence-based clinical decision support systems to be included as part of certified EHRs, the Library includes specific statements of clinical logic representing recommendations extracted from published guidelines or other trusted sources along with an objective quality rating of the evidence underlying each recommendation (level of evidence/grade of recommendation). This quality rating is applied and annotated by librarians with broad medical knowledge but without inherent conflicts of interest or profession-related biases and is validated by a physician with subject area expertise. The Library of Evidence will be distributed in the public domain in a structured form that can be incorporated into healthcare information systems.

Telecommuting from Abroad: A Librarian without Borders**Holly Grossetta Nardini**

Research and Education Librarian, New Haven, Connecticut

For four years, I telecommuted to my public services job at the Cushing/Whitney Medical Library at Yale from Rome, Italy, without patrons even realizing what country or time zone I was in. How was this possible? Our universal success in putting the library on users' desktops means that end-user support can take place 24/7 from anywhere. I will discuss the kind of work I was able to do, examples of similar arrangements at our library, the back-up provided "on the ground," technology requirements, advantages and disadvantages of working in a different time zone, and management issues.

Finding Images You Can Use: Lightning Talk**Tony Christopher**

Director, University, Palo Alto, California

Stanford's Lane Medical Library has developed an Image Search tool system; it is freely available to the public and designed for the discovery of public domain and Creative Commons images to be used in the development of non-commercial, academic courseware in the Biosciences. The system creates and maintains a database of metadata (titles, descriptions, and license rights) on over 2 million images which are currently sourced from seven different web-based image repositories (e.g. Wellcome Images, HEAL, National Cancer Institute, Bassett, PMC). Search terms are matched against the metadata database to determine the image results. The resulting images are relevance

ranked and sorted into four groups based on the license/reuse rights associated with each image - example search <http://bit.ly/stanford-image>.

Bridging the Access to Research Gap through Library Instruction in Peru

Irena Dryankova-Bond

Library manager/Associate Professor of Library and Learning Resources, Worcester, Massachusetts

Alejandro Pino

Assistant Professor of Pharmaceutical Sciences, Boston, Massachusetts

This presentation describes a collaborative program aimed at improving access to HINARI (Health Information Access to Research Initiative) resources for Pharmacy faculty and librarians at the Catholic University of Santa Maria in Arequipa, Peru. In addition it presents successful active learning approaches used to engage participants. The program is funded by the Librarians without Borders and enables educators and researchers from Peru to gain access to large collections of biomedical and health literature thus bridging the existing gap between resource and users in developing world.

Health Information for All: Meeting Challenges in Building Legislative Support for a Statewide Electronic Health Library

Nicole Theis-Mahon

Liaison Librarian to the School of Dentistry & HSL Collection Coordinator, University of Minnesota, Minneapolis, Minnesota

Janice Jaguszewski

Director and Associate University Librarian, University of Minnesota, Minneapolis, Minnesota

Erinn E. Aspinall, AHIP

Web Presence Coordinator & Project Manager, University of Minnesota, Minneapolis, Minnesota

Lisa A. McGuire

Associate Director, Education & Research Services, University of Minnesota, Minneapolis, Minnesota

The high cost of licensed health information resources creates unequal access to high-quality health information for healthcare providers, educators, students, researchers, patients, and caregivers. Our academic health science library has worked for two years to develop support for legislative funding that would provide equal access to evidence-based clinical care information for the 5 million citizens in our state. Despite many - and often surprising - challenges, we have succeeded in bringing our proposal to our state's current legislative session. This lightning talk will highlight our experiences and lessons learned as we became savvy communicators, navigating state and library politics while building strategic alliances that will serve us well in the future.

What in the World Is an Appliography?

Judy Hansen

Consumer Health Librarian, Washington University in St. Louis, Saint Louis, Missouri

Explore the limitless possibilities of promoting health-related apps at your library. Learn what an "appliography" is and discover how to create one. Find out how the Family Resource Center at St. Louis Children's Hospital is using the Kid Care app and others to reach families beyond the walls of the hospital.

Free Range Research

Michelynn McKnight, AHIP

Associate Professor, Louisiana State University, Baton Rouge, Louisiana

You CAN do good research to discover good evidence answering important questions without funding. In many cases you will not need IRB approval. There are ways to deal with the problem of not enough time. Not all questions require an experimental RCT design, either.

Fun Fridays and More: Boosting Students' Morale through Creative Programming

Debra Berlanstein, AHIP

Associate Director, Tufts University, Boston, Massachusetts

Rebecca A. Morin

Head, Research and Instruction, Tufts University, Boston, Massachusetts

Katherine Morley

Administrator, Boston, Massachusetts

A creative public relations team with members representing the entire staff of the library launched an ongoing plan for morale boosting, drop-in fun activities to offset the high stress level of our students. These different and "outside the box" ideas have been met with a very positive response and great participation. Key examples of events include craft sessions focused on holidays like paint a pumpkin and create a valentine, service dogs visiting during exams, coffee on demand delivered to your seat if you tweet, board games available for play, and a valentine photo kissing booth with our skeleton mascots. All of these activities have increased student traffic in the library, built our social media following; we hope to continue to introduce more initiatives that will broaden students' awareness of the library as a campus center.

Not Limited by the Physical Library: Implementing Librarian Attendance at Morning Report and Journal Club

Martha Knuth

Medical Librarian, Western Michigan University Homer Stryker MD School of Medicine, Kalamazoo, Michigan

As part of the brand new Western Michigan University Homer Stryker MD School of Medicine's (WMed), the library spearheaded a collaborative project with the Internal Medicine department to attend hospital Morning Reports and Journal Clubs. The program received such favorable responses that it now includes Pediatrics, Family and Community Medicine, and Emergency Medicine with librarians giving brief presentations at the end of Journal Clubs. By not limiting the librarians to a physical place, the librarians have seen an increase in literature search requests, article requests, research tool usage, research collaboration requests, and utilization of library services.

Librarian-Authored "Resources" Reports at the Congressional Research Service**Ada Cornell**

Information Research Specialist, Library of Congress, Washington, District of Columbia

Medical librarians collaborate frequently with other professionals in research settings. At Congressional Research Service (CRS), the confidential and nonpartisan research and policy analysis arm of the Library of Congress, medical librarians collaborate with congressional staff and CRS health policy analysts. To complement analytic CRS policy reports written by CRS policy analysts, CRS librarians have recently written a number of "resources" reports, which help congressional staff find relevant resources to conduct their own research on health policy, the Affordable Care Act, and legislative topics, as well as providing a point of contact to route information reference questions to CRS librarians. In my lightning talk, I will discuss the development of these new reports, based on user needs, and role of these new reports in our service to our congressional clients.

Pulling It Together: A Bibliometric Tool Supporting Publication Venue Selection**Jeff Williams, AHIP**

Associate Director, Research, Education, & Clinical Support, New York University Langone Medical Center, New York, New York

Aileen McCrillis, AHIP

Head, User Experience and Information Services, New York University Langone Medical Center, New York, New York

Stephen Maher

Assistant Director, Content Management and Scholarly Communication, New York University, New York, New York

Stuart Spore

Head, Bibliometrics & Senior Systems Advisor, New York University, New York, New York

A small team is developing a tool aggregating institutional publication metrics, relevant publication venue selection information, and a licensed journal ToC resource at the title-level for licensed journals. This "journal tool" is designed as a one-stop-shop for authors and researchers making publication venue selections and wanting to stay up to date on their favorite journals. It is also hoped to increase awareness about bibliometric capabilities available through the library. This brief talk will present the tool and report on efforts to enhance usefulness through engagement with targeted users.

Monday, May 18, 10:30 AM – 11:55 AM
Room: Austin Convention Center, Level Four, Ballroom F

Educational Media and Technologies Section

Shaken, Not Stirred: Recipes for Supporting Blended Learning

Supporting Teaching and Learning with a Problem-Based Learning (PBL) Approach Using Technologies

Min Liu

Professor, The University of Texas at Austin, Austin, Texas

Dr. Min Liu will discuss current trends in teaching and learning using technologies and share some of her experiences with blended instruction and using Problem Based Learning (PBL). She will also provide some suggestions/resources for medical librarians to consider if planning to be involved in using technologies to support PBL instruction.

The Active Health Sciences Librarian

Anne M. Linton, AHIP

Director, School of Medicine and Health Sciences, The George Washington University, Washington, District of Columbia

The librarians at the Himmelfarb Health Sciences Library, The George Washington University, played a strong role in supporting faculty in the implementation of the School of Medicine's revised active curriculum. They built on past participation in problem-based learning and the informatics curriculum, implemented skills learned in the Master Teacher Leadership and Development Program, and moved from a supportive role in the active curriculum to a participatory role. The process challenged librarians to expand their expertise, negotiate collaborations on curriculum teams, and interact more regularly with faculty planners.

Preventing Faculty from Committing Kamikazes: A Recipe for Success

Rebecca Fountain

Assistant Professor, The University of Texas at Tyler, Tyler, Texas

Flipped classrooms in healthcare engage and improve student outcomes with the support of multiple technological advances. Involving students can frequently be challenging to the faculty member who was once the 'sage on the stage'. Empowering these faculty members through the firm foundational support provided by medical librarians are essential to reduce the fears and anxieties traditional faculty may experience. Methods to translate the evidence through user friendly technology can include smart phone apps, collaborations during interdisciplinary simulation, service learning projects, etc... The purpose of this presentation is to provide methods for medical librarians to support the faculty member's "divine wind" within the classroom, thereby preventing the faculty members demise through kamikaze.

A Flip or a Flop?: Flipped PubMed Instruction for Health Sciences Students

Lynn Kysh

Information Services Librarian, University of Southern California, Los Angeles, California

With expertise in information literacy and search skills, librarians are poised to instruct students in improving their abilities to search medical literature. However, librarians' access to students is often relegated to a one-time workshop with limited impact. Flipped classroom methodology offers a potential solution by supporting in-person instruction with self-directed asynchronous material.

In August of 2014, first year medical students were introduced to PubMed through a flipped classroom module built around six interactive video tutorials that were followed by a ninety minute in-person session. The strengths and weaknesses of this module will be highlighted through website analytics, student feedback, and instructor experiences. Participants will leave the session better prepared to create successful flips and completely avoid total flops!

Monday, May 18, 10:30 AM – 11:55 AM
Room: Austin Convention Center, Level Four, Room 18B

Hospital Libraries Section

Data Management: E-Science as a Library Service

Introduction to the May 18, 2015, Hospital Libraries Section Panel on Data Management: E-Science as a Library Service

Sheila Hayes, AHIP

Senior Librarian and Web Resource Librarian, Hartford Hospital, Hartford, Connecticut

Hospital librarians by the nature of their work organize, index, and refine data for the purpose of making resources available, accessible and useable on a daily basis. This skill base is an investment that hospitals make but generally never utilize outside of library services. As hospitals move to determine where all the institutional data repositories are located, one salient fact emerges – there is a lot of data that is not being used. Data needs to become meta-data to be utilized. This is a complex process. Hospital Librarian can and should be part of this process. Librarians contribute to this process a unique set of skills, which include the following:

- constructing thesauri and taxonomies (controlled vocabularies)
- indexing services
- evaluating and application of software
- providing Informationist services for specific projects. The National Library of Medicine's Unified Medical Language System (UMLS) is a tool to be used by hospital librarians become part of this process. This tool can identify ways to organize data systems that have never been or poorly organized (e.g., laboratory manuals, research projects, departmental inventories, non-indexed publications). In this panel discussion this morning you will be treated to librarians that have stepped out into data management. Thanks for coming to this discussion.

Librarians as Matchmakers: Using Dating Sites as a Model for Collaboration

Roger Altizer, Jr.

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Objectives: To establish a tool using indexing services and controlled vocabularies that fosters collaboration between researchers by removing the traditional challenges of finding colleagues. We created a simple online interface based on social network/dating service principles and best practices, using studies that outlined typical adult use of social media, communication patterns over the internet, and published articles from services like OKCupid that laid out data on specific features impacting the chances of a match. This will help researchers find others outside of their immediate communities and create a wider network of knowledge sharing. It can be used in conjunction with existing database systems to populate the user's information and lower barriers to access.

Methods: Initial design began with interdisciplinary research to identify technologies that have taken off which help people connect. Since we know that finding research collaborators is difficult, we examined what can be learned from existing solutions such as social networking sites and dating sites. In response to the problem of information over-saturation, we opted for a simple tagging system that researchers can use to find others in related fields that are also working on similar projects. This emulates a hashtag system where users can easily find like minded individuals to interact with, as seen on Twitter. The system is also emulating the interest tags of several well-known dating sites like OKCupid and eHarmony. The HSIR began as a social interface for researchers to set their own research focus tags to be associated with their account, either input manually or pulled from uploaded papers. They can then search for other researchers by tags and indicate their desire for collaboration. If the other researchers are interested in collaboration, they can accept and begin communication. Additional design considerations, from layout to login to profile picture, were gleaned from academic studies, data mining, and market research.

Results: At the end of the day, we created a functioning tool that serves as a proof of concept, but it remains untested. The pitfalls experienced with this project were not as numerous as they could have been, but we recognize that additional resources would have better supported our project. More time to complete a project is always desired, since we were only funded for one semester to go from concept to working prototype; we could have done much more with a longer development cycle. With more time, we could have improved existing features and performed user research on our current model. Our keyword/tagging system is rudimentary and could be improved upon, as could the visual design of the user interface. The addition of professional graphic design skills, often essential to user interface creation, would bring great improvements. If we had more programming power, perhaps we could have figured out a way to integrate with the ORCID system to populate the research database more efficiently. There are an endless number of systems this tool could be married to, including conference registration and submission systems. It could be slightly modified to help conference attendees' network before and after events, making it easier to locate contact information or presentation information post-conference. As a prototype, this HSIR tool started small due to our desire to create something that can be modified, enhanced or attached to related information. We believe that the results would be more apparent with user testing and further research.

It's worth emphasizing that the tool we created is designated as a working prototype and not a finished product – it's meant to be improved upon. Despite our dedication to an agile development, we were still accountable to expectations set at the beginning of our process. As a project run by a number of students with a limited amount of experience in research and design, there's bound to be overlooked preexisting systems and data that could have aided development immensely. One of our biggest challenges is determining how much of an impact this tool can potentially have. Web traffic tracking and reports would only cover so much ground. How could we truly determine if our tool could help researchers connect? The librarians might have been an unimaginably useful resource in this regard, given their role as a hub and connector for many different departments. We also need to further research how to apply the best practices to a simple system design and how that design might be implemented.

Conclusions: “Colleague”, as this tool became known, is merely a tiny tip of the iceberg. Another problem we face in the future of development is managing user expectations and understanding how to listen to their needs. Not everyone wants or needs a simple tool like this to find collaborators, but we want to encourage its use among all the populations we named as a potential audience or user base. We adapted our goals and design based on research and input from HSIR (our funders), librarian collaborators, faculty mentors, and any other source of feedback we could get. The design was narrowed down, honed, and perfected to the best of our ability. Good design is made even better when it's supported by extensive research, evidence, and theory. We greatly benefited from our collaboration with the Spencer S. Eccles Health Science Library (EHSL), the Entertainment Arts and Engineering (EAE) faculty, the Health System Innovation and Research (HSIR) team, and the Therapeutic Games and Apps (The GApp) Lab. Such partnerships are the kind of collaborations we hope to foster with this HSIR tool – a lasting and beneficial partnership that seeks to positively impact and improve the research efforts of each participant.

Building a Data Catalog: Promoting Data Reuse and Collaboration at an Academic Medical Center

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Objective: A need was identified by the department of population health (DPH) at an academic medical center to facilitate research using large, externally funded datasets. Barriers identified included difficulty in accessing and working with the datasets and lack of knowledge about institutional licenses. A need to facilitate sharing and reuse of datasets generated by researchers at the institution (internal datasets) was also recognized.

Methods: The library partnered with a researcher in the DPH to create a catalog of external datasets, which provided detailed metadata and access instructions. The catalog listed researchers at the medical center and the main campus with expertise in using these external datasets in order to facilitate research and cross-campus collaboration. Data description standards were reviewed to create a set of metadata to facilitate access to both externally generated datasets, as well as the internally generated datasets that would constitute the next phase of development of the catalog. Interviews with a range of investigators at the institution identified DPH researchers as most interested in data sharing, therefore targeted outreach to this group was undertaken. This outreach served to both promote catalog use and to identify researchers whose internal datasets were good candidates for the catalog expansion.

Results: Initial outreach resulted in additional external datasets being described, new local experts volunteering, proposals for additional functionality, and interest from researchers in inclusion of their internal datasets in the catalog. Despite limited outreach, the catalog has had ~250 unique pageviews in the three months since it went live. The establishment of the catalog also led to partnerships with the medical center's data management core and the main university library. The data management core plans to provide storage and access to research datasets, and would work with the catalog to make those datasets findable. The partnership with the main library includes plans to both work with data librarians to identify and describe relevant internal datasets from researchers on the main campus and to establish a feed of descriptions from the data catalog for inclusion in the main university catalog.

Conclusions: The Data Catalog in its present state serves a direct user need from the Department of Population Health to describe large, externally funded datasets. The library will use this initial strong community of users to expand the catalog and include internally generated research datasets. Future expansion plans will include working with DataCore and the main university library.

Limitless Data Services? Scaling up the Library's Role in Data Management

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Objectives: To identify data management librarians/informationists at the UCLA Library, engage them in articulating service experiences and perform a gap analysis of services relative to the data life cycle in order to expand, improve, and promote data management services at UCLA Library.

Methods: The UCLA Library made several attempts to establish data management services or embed librarians in data support over a 6 year period. However, scalable service profiles were elusive as no clear expectations had been established for liaisons, educational activities were not sustainable, and no shared conceptual framework for library services was developed. The authors reviewed existing literature on data management curriculum and programs. After interviewing library staff with consulting experience related to data management in the research life cycle, both information sets were combined to develop quantifiable knowledge-skills for liaisons and abilities that we expect researchers to have after consultations (KSAs).

Results: KSAs were translated to a concept map of existing library services, and a gap analysis identified specific areas for library improvement in training and marketing of services. KSAs will be used to further develop educational offerings for the UCLA community and sustainable on-boarding procedures for new hires.

Conclusions: Upon analysis of transcripts and literature, authors identified several areas of expertise among existing staff and recognized that no one discipline was represented by a staff member who was well versed in all aspects of data management services. Current and future efforts to cover the data life cycle require that expertise be better coordinated across disciplinary boundaries within the Library and coherently communicated to the larger research community. Data derived from the gap analysis should inform our future staff development and recruitment activities.

Where Is My Data Scientist?

Bart Ragon

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Objectives: Wanted, data scientist - must have statistical knowledge, domain expertise, and hacking skills. With no current funding for a data scientist, the UVA Health Sciences Library pursued creative partnerships to address a growing need for research support at the Health System.

Methods: Software tools for data analysis and informatics are changing the way science is done. The Health Sciences Library has been monitoring trends in research computing and investigating ways to support emerging needs; however, without the right skillset on staff this is challenging. Other service units at UVA conduct workshops that would be of interest to Health System researchers, but distance is a barrier to access. The solution – bring the experts to the patron. Through collaborations with willing partners, the library sponsored a series of workshops on the R

statistical programming language, iPython Notebook, Linear Modeling, SPSS, cluster computing, and text mining. The library also sponsored two bootcamps which included content on bash scripting, version control, and RNA-seq Data Analysis.

Results: Evaluations were electronically distributed to all participants of the research support workshops. Participants were asked, “As a result of attending this workshop, I am more familiar with the topic that was presented”, “Attending this workshop was a worthwhile investment of my time”, “I would recommend this workshop to a colleague”, and “The moderator seemed very knowledgeable about the topic”. In all cases participants, “Strongly Agreed” or “Agreed” with the questions. Two areas were identified in participant comments as areas for improvement. First, there was a general desire for more in-depth instruction for the use of software tools in the application of the biomedical research process. Second, numerous requests for additional workshops involving additional tools not covered in the workshop series.

Conclusions: The library continues to nurture collaborations with researchers to bolster the bioinformatics needs of its patrons. The workshop series was refined in 2015 based on patron feedback and now includes workshops on Advanced Data Manipulation with R, Advanced Data Visualization with R and ggplot2, and Using R for Manipulation, Analysis, and Visualization of Biological Data. The library also coordinated a two-day workshop, Software Carpentry for the Biomedical Researcher in March 2015. Based on the success of these partnerships, 20% of a Bioinformatics expert from the School of Medicine will be devoted to continuing these efforts starting July 2015.

Integrating In-House Patient Instructions in the Electronic Health Record

Ruti Volk, AHIP

Patient Education Librarian, University of Michigan Health System, Ann Arbor, Michigan

Mini Chalil

Objectives: Clinicians are often unhappy with vendor-supplied patient-instructions included in many EMR applications. A large health system implemented a solution for integrating in-house, custom-made patient instructions in the EMR. The objectives were to enable easy access and printing of in-house instructions, and to ensure version-control and consistency of materials provided through the EMR, internal resources and the public website.

Methods: Collaboration between the IT team and the Health System’s patient education librarian made it possible to supplement third-party vendor content with patient instructions written by our system’s clinicians. The librarian is responsible for converting written instructions to a file format that enables uploading it to the application and for quality-control and governance of documents. The IT team is responsible for uploading the documents into the system. The process relies on an existing database of patient education materials, maintained by the librarian. The database includes a submission and approval process to make sure materials are written in plain language, and an update-and-review process to maintain version control and ensure that the most current version is accessed by all users. In addition to the EMR, the database is also integrated with internal websites and the health system’s public website.

Results: So far the institution uploaded over 700 in-house created patient instructions accessible

through ambulatory care, inpatient and emergency room modules.

Conclusions: Clinicians demand the ability to supplement third-party patient instructions that are included in the EMR with content created in-house. The challenge is to keep patient instructions current and consistent in all parts of the health system and in all systems used to provide patient education. Librarians are essential to this effort because it requires meticulous cataloging and classification. This project is successful because it's a collaborative effort bringing together the expertise of a medical librarian and a health information-technology professional.

Monday, May 18, 10:30 AM – 11:55 AM
Room: Austin Convention Center, Level Four, Room 18A

International Cooperation Section

Information Empowerment: Breaking Health Boundaries

Logical Empowerment: Using a Mixed-Method Participatory Approach to Identify Information Services and Resources That Support Global Health

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Project Aim: The aim of this project is to define a logic model that identifies the resources, activities, and measurable outcomes of an Informationist Program to increase support for faculty, staff, and students engaging in globally focused clinical research, international health and policy, education activities, and facility development. This paper presents the process a Task Force employed to develop this logic model.

Methods: Researchers and clinicians working with global populations have specialized information needs. They face potential barriers to information services when they are in the field or working alongside indigenous populations, such as lack of access to health information resources and physical distance from information professionals. The Task Force developed a concept model based

on the statistical analysis of feedback gathered from key stakeholders selected from the Schools of Medicine, Nursing, and Public Health and major research centers with a global health focus to insure comprehensive campus wide input into the model. Topics for the data gathering activities were based on an environmental scan of the published literature on information services for global health. The logic model structures the concepts into a usable model that libraries can deploy at their own institutions.

Results: Concurrent activities included development of a conceptual model for building information services and a preliminary analysis of current global health projects. The initial analysis reveals that the largest clusters of health-related topics include HIV treatment and prevention, family planning and reproductive health, and infectious diseases such as malaria and tuberculosis. Global Health researchers and practitioners are dispersed among the three schools and the Johns Hopkins Hospital, as well as multiple Research Institutes and Centers. One major area identified for informationist support includes providing online, remote training for affiliated and unaffiliated staff members working in the field in low resources settings.

Conclusions: The process of developing the logic model successfully revealed opportunities available for expanding informationist support of global health activities. Creating a logic model provided a framework for identifying resources, opportunities, outputs, and potential impacts of the expanded informationist activities. Developing the logic and conceptual models allowed us to incorporate a strong theoretical underpinning to guide our future research and services.

HINARI: A Global Resource for Information Empowerment

Karin Saric

Information Services Librarian, University of Southern California, Los Angeles, California

Objectives: To explain the MLA Librarians Without Borders HINARI Initiative. Share findings drawn from co-instruction of HINARI workshops in two developing countries in the Balkans (Bosnia & Herzegovina and Montenegro) in April, 2014. Suggest how this resource can be incorporated into local environments, in order to facilitate greater awareness and access to information that will empower the end user.

Methods: HINARI Access to Research in Health Programme is a public-private partnership sponsored by the World Health Organization. Together with major publishers and other organizations, the program provides free or low cost access to major, peer-reviewed, biomedical journals to not-for-profit institutions in developing countries. Supported by a grant from the Elsevier Foundation, Lenny Rhine, FMLA, has conducted HINARI Training Workshops in over 50 countries. These workshops focus on how to search for information and access high quality evidence. As co-instructor in two recent workshops in the Balkans, the author gained insights into how health disparities and information needs have converged on a global level. The author will describe her findings, as well as the content and demographics of HINARI workshops. Suggestions to addressing global health needs, by incorporating HINARI into local environments, will then be discussed.

Accessibility to Health Information on the Internet: The Case of Medical and Dental Students of Ibadan Medical School, Nigeria

Samuel Akande. Bello

Health Sciences Librarian and Head, Outreach & Logistics, Ibadan, Nigeria

Methods: Four hundred and seventy three Part 4-6 clinical students enrolled for Bachelor of Medicine / Bachelor of Surgery and Dentistry Surgery (MBBS/ BDS) participated in the study. Descriptive survey design was adopted and total enumeration technique was used to cover all the 564 clinical students of Ibadan Medical School. A- 20 item questionnaire was used to illicit information from the respondents. With the permission of the lecturers and support from the students' representatives, the researcher administered the questionnaire to all the students in a classroom shortly before their lectures. Data was analysed using descriptive statistics including frequency counts and percentages. Statistical Package for Social Science (SPSS) was used for the data analysis.

Results: The student's mean age was 23.3. Majority of the respondents were computer literate (n=470: 99.4 %). Almost all of the respondents had knowledge of Internet (85.6%); 84.6% accessed Internet in the hostel and 15.4% had access to the Internet at cybercafe. Few (10.6%) visited the library for the purpose of accessing information on the Internet. A great majority (96.2%) of the students surf the Internet everyday and 80.8% accessed it for e-mail communication. 80.3% used the Internet to access learning resources and 16.9% used it as a means of submitting their completed assignments to their lecturers.

Conclusions: Medical and Dental students acknowledged that the Internet is a valuable source of relevant information and utilize –it as a global means of communication and learning.

NExT: Creating an Interprofessional Alliance to Diminish Informational Barriers for Public Health Nurses

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Carmen Howard

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Patricia Eathington

Assistant Professor, Western Illinois University, Macomb, Illinois

Objectives: Public health nursing (PHN) is a profession aiming to improve the health of all people, however many PHNs do not have access or training in use of evidence-based resources. By educating PHNs in NLM/NIH resources and translating evidence from those resources into practice, this grant-funded librarian and nurse-led interprofessional educational project will impact the health of our local communities.

Methods: To conduct this training, the group NExT, Nursing Experts: Translating the Evidence was formed. Nurse and librarian dyads will partner to provide three-hour in-person educational sessions to PHNs and workers. Ten sessions will occur state-wide in public health departments or health

science libraries over the period of one year. These sessions will provide instruction on the use of high quality, free government resources available from the NLM/NIH and other agencies. Brownson's model for evidence-based public health and a case study was used to demonstrate how to translate evidence into daily practice, policy development, and grant writing. To measure the impact of the instruction session, a pre/post survey methodology was implemented; asking familiarity before, and rating confidence levels on perceived understanding after, of the new content and resources. A comparison between the surveys will allow investigators to make inferences about the success of the project.

Results: Preliminary results indicate the majority of participants (n=17), reported the workshop was a good use of their time. Based on a 5 point Likert scale, they developed new skills (m=3.88, SD=.697) and were able to find evidence-base literature (m=4.06, SD=.556). In addition, the responses to self-reported understanding of concepts measured positive change in: a) evidenced-based public health (mean difference = 0.71), b) PICO question (mean difference = 1.88), c) Critical appraisal (mean difference = 1.53), and d) knowledge translation (mean difference = 1.41). Responses also indicate an increase in familiarity of the presented evidence-based resources a) PubMed (mean difference = 1), b) Guide to Community Services (mean difference = 1.81), c) PH partners (mean difference = 1.19), d) NGC (mean difference = 1.56), e) USPSTF (mean difference = 1.47), and f) NACCHO (mean difference = 1). This analysis will be expanded using relevant statistical calculations when sample size is larger and tested for normality.

Conclusions: The initial analysis reports positive findings as result of the training; additional data will be added and analyzed after six more education sessions and a state-wide webinar is held to reach the rural public health workforce.

Infectious Disease Outbreaks Know No Boundaries: Ebola Health Information Case Study

Siobhan Champ-Blackwell

Health Sciences Librarian, National Library of Medicine, Bethesda, Maryland

Objective: Whether disease outbreaks are at home or abroad, medical librarians may be called on to provide clinical and public health information about emerging infectious diseases and outbreaks. This session will highlight NLM's efforts and response during the recent Ebola outbreak and will suggest ways all medical librarians can help disseminate reliable and timely health information during outbreaks.

Methods: The 2014-15 Ebola outbreak in West Africa continues to be the largest ever. As Ebola threatened to cross borders and potentially spread rapidly by air travel, it caught the attention and response of international organizations and national governments. The U.S. popular interest in Ebola peaked with the one fatal case in Dallas in October, 2014, which was heavily covered in the media. This major outbreak of a rare, self-limiting, and little studied infectious disease created a huge demand for medical information from numerous groups: those treating patients at the outbreak's epicenter, non-government organizations (NGOs) who provide medical services, government agencies, disease response planners, and healthcare systems increasing their preparedness for possible cases, the transportation sector, and all others who have to make immediate preparations, policies, and decisions to contain the outbreak. The Disaster Information Management Research Center of the NLM Specialized Information Services Division will discuss their response as well review the use of NLM online resources to provide access to Ebola-related

journal literature, genetic resources, grey literature and other information sources.

Presenter: NLM Disaster Information Management Research Center staff

Monday, May 18, 10:30 AM – 11:55 AM
Room: Austin Convention Center, Level Four, Room 18C

Leadership and Management Section

No Limits on Leadership Opportunities

Early Career Librarians of Color: Getting Hired and Thriving as New Librarians in Academia

Nancy Olmos

Head, Metadata & Content Management, University of Southern California, Los Angeles, California

Objectives: As recent library school graduates, the author and a colleague started a Professional Learning Community (PLC) for early career librarians and archivists of color. The purpose of this community is to provide tools and support for job searching and early career guidance.

Methods: In Spring 2014, the author co-founded a Professional Learning Community to foster a safe space for new graduates of library school and early career librarians to network and conduct mock interviews and presentations. Organizers created a Libguide of relevant resources, setup local meet-ups, identified relevant webinars, and reached out to mentors in local ALA caucuses of color and the Joint Conference of Librarians of Color (JCLC). Building these communities have begun to result in the hiring of participating new librarians of color into professional positions.

Results: As a result of the holistic approach of conducting mock presentations, mock interviews, local meet ups, abstract preparations, workshops and special projects on a need basis, at least 2 members have been hired into professional librarian positions in academic libraries. The group has also outreached and recruited 15-20 newly hired librarians of color, library school students and mentors and has several projects in the works.

Conclusions: Creation of the professional learning community has been enthusiastically welcomed by librarians in the Greater Los Angeles area. Participation in a supportive local community created by and for librarians and archivists of color plays an important role for new librarians of color getting hired and successfully navigating academia.

Leadership in Professional Development: Growing as a Leader in Graduate Education

Jackie Wirz

Director, Professional Development Center | Research Data Specialist, Oregon Health & Science University, Portland, Oregon

Objectives: From serving on our University's Graduate Council to a new position as Director of Professional Development for 20+ graduate programs, this paper presents my path as a brand-new Biomedical Research Specialist to a new position as a leader in graduate studies.

Methods: As the new Biomedical Research Specialist at my institution, I wanted to work with our research community not only at an individual consultation level, but also at a broader policy level. I created a seat for the library at our Graduate Council, the administrative body responsible for policy and implementation of our 22 graduate programs. Subsequently, I was invited to participate in the Graduate Program Steering Committee, which is a small, focused group of faculty working on high level policy. Through this work, I have been able to advance the library by connecting people and programs with services and develop my personal leadership skills. Recently, I've been asked to develop and lead a professional development center for our graduate programs. This is an unprecedented opportunity for a library faculty member to provide leadership to my graduate student community.

From Caterpillar to Butterfly: Decade of Innovative Library Transformation

Stevo Roksandic, AHIP

Regional Director, Mount Carmel Health System, Columbus, Ohio

Objectives: This Library was established over 90 years ago with mission to support hospital nursing school and medical staff education. In last decade, under newly appointed visionary leadership, this Library has fundamentally transformed its operating processes and services including: business operations design, staffing and professional development, technology use, services, marketing, collections development, information access and physical space design.

Methods: This paper will highlight ten years of innovative change in a medical/academic health sciences library system. It will describe how innovative ideas became reality. Breakthrough institutional innovations and community collaborative partnerships have resulted in newly-designed Corporate Library Support and public-oriented Consumer Health Library services. Implementing the newest trends in educating, organizing, training and coordinating staff has been fundamental to all these changes. This has led to increased productivity, engagement, collaboration and professional satisfaction. Ultimately, restructuring and synergizing of people talent and skills resulted in an exceptional impact on clients' education, information clinical support and literature research. Early implementation of emerging technologies led to creation and establishment of services which greatly complemented the continuous improvement of marketing, collections development, information access and re-creation of physical space design. All of this has demonstrated that innovative transformation in a Library has endless opportunity.

Results: This is retrospective summary, therefore results are not included.

Conclusions: Conclusion will be summarized in content: innovative transformation in a Library has endless opportunity.

Monday, May 18, 10:30 AM – 11:55 AM
Room: Austin Convention Center, Level Four, Room 18D

Pharmacy and Drug Information Section

Access Pharmacy Panel: Serving English Language Learners

English as a Healthy Language: Strategies to Educate English Learners

Myriam Martinez-Banuelos

Outreach Librarian, University of North Texas Health Science Center, Fort Worth, Texas

The Outreach Program at the University of North Texas Health Science Center was able to reach English learners by providing training sessions on health literacy to community members, Community Health Workers (CHWs), and ESL (English as a Second Language) instructors. For the first time in the program's history, training sessions on health literacy were provided to Spanish-speaking members of the community and Community Health Workers in their native language. The training sessions were expanded to educating ESL instructors about adding health topics into their curriculum by using the National Library of Medicine resources. In doing so, instructors were encouraged to explore techniques that help English learners build language and health literacy skills simultaneously. Training sessions were offered in both English and Spanish, which was what contributed to its success and effectiveness.

Roles of Subject Liaison Librarians in a Research University

Xiaomei Gu

Clinical Education Librarian, University of Iowa, Iowa City, Iowa

In a large research university, we serve various types of English language learners including students who are enrolled in our institution and students who are temporarily visiting. I will share my experience as a Pharmacy Liaison of assisting visiting pharmacy students from Japan and assisting international graduate students in the College of Pharmacy. I currently serve on the University Libraries' Task Force on Library Services for International Students. The task force conducted two pilot focus groups with international students. I will share the focus group results and other actions and recommendations the task force has made.

Subverted Expectations: Serving Highly Educated People with Limited English Skills

Mark Picus

Language Training Specialist, The University of Texas MD Anderson Cancer Center, Houston, Texas

We often make snap judgments about others based on how they talk. If library users have difficulty making their needs known, we are likely to adjust both the content and the form of our interactions based on quickly formed conclusions. Language learning, however, is a complicated process that rarely proceeds in a linear fashion. In this presentation, I will discuss how many of the linguistic judgments we make of those we serve are often subverted by the reality of our patrons' language abilities.

Creating a Computer Literacy Program for Community Health Workers**Yamila M. El-Khayat**

Outreach Services Librarian, University of Arizona, Tucson, Arizona

Community Health Workers/Promotoras (CHWs or Promotoras) have a significant and often underutilized role in health education and promotion programming for Latino communities. This presentation examines the experience and outcomes of a computer literacy program intended to teach Community Health Workers/Promotoras how to access and evaluate culturally and linguistically appropriate (English/Spanish) information from the internet. The health topic is breast cancer and the Promotoras will work with families, patients, and community health coalitions. This presentation describes program development and implementation, and includes assessment, curriculum, and lessons learned, as well as possibilities for future work.

Monday, May 18, 10:30 AM – 11:55 AM
Room: Austin Convention Center, Level Four, Ballroom E

Public Health/Health Administration Section

Education without Limits

Good Information for Good Health: A Collaboration to Educate Unaffiliated Community Health Care Practitioners about Patient Information Resources through Online Continuing Education

Patricia V. Bradley, AHIP

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Gale G. Hannigan, AHIP

Research Professor, University of New Mexico, Albuquerque, New Mexico

Eliot Knight

Instructional Media Project Manager, University of New Mexico, Albuquerque, New Mexico

William F. Rayburn

Associate Dean for CME & Professional Development, UNM School of Medicine, Albuquerque, New Mexico

Objectives: A needs assessment interview study of 51 health care practitioners statewide indicated dissatisfaction with the resources they used to provide patient information. NN/LM funding enabled us to develop online continuing education modules that highlight NLM and other high quality, freely available health information resources. The goal is to promote awareness and use of authoritative websites, with the incentive of professional continuing education credit.

Methods: The target population includes health care practitioners throughout a rural state, including physicians, nurses, physician assistants, nurse practitioners and pharmacists. The project represents collaboration between library faculty, the Director of CME and Professional Development, and an instructional design/multimedia specialist. We used the results of a needs assessment to design five modules, each focusing on a topic relevant to practitioners and their patients. Module titles are: Information to Support Shared Decision Making, Information for Different Life Stages, Information for Patients about Their Medications, Information for New Mexicans, and Information for Your Community. The modules include short instructional videos, which were produced with Camtasia software and uploaded to YouTube. The course uses the open-source learning management system, Moodle (Modular Object-Oriented Dynamic Learning Environment) to support delivery of the distance learning course.

Results: Developing the first module involved creating a template for all modules. This took a considerable amount of time, but made the production of subsequent modules easier and provided

a consistent format for all modules. Each module includes educational objectives, video presentations about recommended resources, exercises, patient scenarios, assessments, and course evaluations, with examples that highlight information about healthy living as well as about disease and scenarios based on common health issues in New Mexico. Exercises incorporate the NLM/ACP Information Rx form and the use of a Plain Language Thesaurus.

Conclusions: Collaboration with an Instructional Design /Multimedia Specialist contributed technical and pedagogical expertise in creating the online learning modules. The five modules are freely available on the web and health professionals can apply for continuing education credit upon completion of each. Promotion of the modules is essential in a predominately rural state. For many, online education is a relatively new way of learning. Measurable indicators of success include information from course evaluations and number of people completing the modules.

Beyond the Basics: Pushing the Limits of Data Management Instruction

Lisa M. Federer, AHIP

Research Data Informationist, National Institutes of Health, North Bethesda, Maryland

Objectives: Many biomedical libraries have begun to incorporate data management sessions into their instructional offerings, yet most focus on introductory, “data 101” level offerings. This paper reports on the development of library-based, advanced data management sessions, covering topics addressing data management across the entire research data life cycle.

Methods: The library conducted a survey to determine areas of interest and need for data-related instruction among researchers, clinicians, and other library users. Evaluations from the library’s “Introduction to Data Management” class were also analyzed to assess areas of need for advanced data management instruction. The library’s research data informationist developed three 1.5 hour long courses covering topics identified as the most highly relevant to survey respondents: organization and description with metadata, reuse of existing scientific datasets, and preservation and retention of research data. These courses were offered as standalone sessions over the course of three months in fall 2014. Class evaluations collected quantitative and qualitative feedback from attendees.

Results: Results of the needs assessment suggested that researchers would benefit from advanced, in-depth instruction in specific data-related topics. Class evaluations also support this finding, with attendees tending to rate topic-specific classes higher than overview classes on relevance, satisfaction, and other measures.

Conclusions: Libraries can play an important role in providing training to help researchers gain expertise with specific tasks and skills across the entire research data life cycle. While many libraries have focused their efforts around data management planning and introductory courses, researchers may benefit more from specialized training courses.

Data Management Reciprocity: Librarians and Researchers Teaching Each Other

Melissa A. Ratajeski, AHIP

Reference Librarian, Health Sciences Library System, Pittsburgh, Pennsylvania

Carrie L. Iwema, AHIP

Information Specialist in Molecular Biology, University of Pittsburgh, Pittsburgh, Pennsylvania

Andrea M. Ketchum, AHIP

Reference Librarian, University of Pittsburgh, Pittsburgh, Pennsylvania

Objectives: A survey conducted last year identified knowledge gaps in the current data management practices of health science researchers at our institution. To close these gaps and to facilitate reciprocal education of data management practices between librarians and researchers, librarians immersed themselves in a variety of labs and provided targeted education through one-on-one discussions.

Methods: Researchers willing to have candid discussions with librarians about their research studies and data management practices were identified through library email lists, Web site and blog announcements, and personal contacts. A diverse group of researchers were recruited, varying in research role (e.g. primary investigator, post-doc, technician), research type (human, animal, and/or bench), and health sciences field. Librarians met with each researcher for several hours in his/her laboratory space. Researchers explained their research studies to librarians and were interviewed about their data management practices, such as file naming conventions, metadata use, data storage, and how data is shared. They were also asked to detail any issues with their current practices or workflow. Through discussions and follow-up communications, librarians used the knowledge gained to address any data management concerns identified through the immersive experience.

Results: My results are not complete yet. If selected, I will come back into the system and enter my results after December, 2014

Conclusions: My results are not complete yet. If selected, I will come back into the system and enter my results after December, 2014

Using Learning Styles to Educate Health Care Providers about New Treatment Strategies for Breast Cancer

Katy Justiss

Evidence Librarian, Vanderbilt University Medical Center, Nashville, Tennessee

Sheila Kusnoor

Associate Director for Research, Vanderbilt University Medical Center, Nashville, Tennessee

Patricia Lee

Assistant Director, Vanderbilt University Medical Center, Nashville, Tennessee

Ingrid Anderson

Program Coordinator II, Vanderbilt University Medical Center, Nashville, Tennessee

Christine Micheel

Research Assistant Professor, Vanderbilt University, Nashville, Tennessee

Mia A. Levy

Ingram Assistant Professor of Cancer Research, Assistant Professor of Biomedical Informatics, Assistant Professor of Medicine, Division of Hematology and Oncology, Director Cancer Clinical Informatics, Vanderbilt University Medical Center, Nashville, Tennessee

Objectives: Our library previously demonstrated that providing patients with educational materials customized to their learning style preferences and health literacy increased their understanding and retention of the information. Here, we discuss how we collaborated with the My Cancer Genome (MCG) team to evaluate the use of learning styles to address knowledge gaps among oncology healthcare providers.

Methods: In response to a Pfizer call for grants evaluating learning styles to address knowledge gaps about overcoming resistance to endocrine therapy in breast cancer, MCG investigators approached our team about submitting a proposal together. During meetings with MCG, we discussed the significance of learning styles, how to customize materials according to learning styles, and methodologies for evaluating the effectiveness of tailoring information on comprehension. Based on our previous work, we elected to tailor information based on visual, read/write, or aural modalities, and to evaluate comprehension of information based on differences in pre- and post-tests of knowledge about provided educational information. This paper will discuss the collaborative development of content about endocrine therapy-resistant breast cancer materials for multiple learning styles with our MCG colleagues.

Results: Librarians and information specialists collaborated with MCG investigators to create professional-level information about novel treatment strategies for breast cancer. An initial version of the content was created using the existing format from the MCG website. Librarians and information specialists adapted the content in various formats, using PowerPoint, audio recordings, and text, to match preferences for different learning styles. Figures were developed based on examples obtained from a review of the literature. Throughout the development process, the content was meticulously reviewed for any variations between the different formats. Regular searches of the literature and clinical trials were also conducted to ensure the accuracy and currency of the information.

Conclusions: Learning styles and a variety of other factors play a role in comprehension of health knowledge, and librarians and information professionals must be prepared to meet these challenges. Health information tailored to learning style may be an essential component for the quick comprehension of novel oncology treatment information. The development of such materials can be accomplished through collaboration between departments with different expertise.

How to Win Partners and Influence Students: Collaborating to Teach New Literacies Online

Heather Collins

Assistant Director of Research and Learning, University of Kansas Medical Center, Kansas City, Kansas

Joelle Pitts

Instructional Design Librarian, Kansas State University, Manhattan, Kansas

Sara Kearns

Head, Undergraduate and Community Services, Kansas State University, Manhattan, Kansas

Objectives: This paper explores a collaborative online learning platform which aligns meta-literacy themes in the new ACRL Framework for Information Literacy and multiple health science programs' accreditation competencies with interactive lessons that explore new literacies concepts independent of specific databases or technologies. This paper highlights the platform's technological features, a dashboard prototype, and information about joining the collaboration.

Methods: A multi-institutional collaboration was formed to address two issues commonly faced by academic librarians: incoming students with varying new literacies skills and the lack of resources within one institution to systematically bring all incoming students to the same literacy level. Students increasingly move between institutions so inter-institutional assessment was important in design. Additionally, the platform needed to include new literacies, incorporate evidence-based practice principles, use engaging lessons to address gaps in students' skills, and entail the ability to port students' scores and lessons from one institution to another. Modules and lessons were mapped referencing relevant literacies, including the new ACRL Framework for Information Literacy. Elements of the platform including pedagogical foundations, assessment methods, interactive dashboard prototype, and open source/open access will be explored.

Results: My results are not complete yet. If selected, I will come back into the system and enter my results after December, 2014

Conclusions: My results are not complete yet. If selected, I will come back into the system and enter my results after December, 2014

Monday, May 18, 10:30 AM – 11:55 AM
Room: Austin Convention Center, Level Four, Room 19A

Relevant Issues Section

Librarian as Activist

Information Activism: Your Convictions and Your Career

Rachel R. Walden

Associate Director for Library & Knowledge Management, Vanderbilt University Medical Center, Nashville, Tennessee

Ms. Walden is experienced in non-profit advocacy work including blogging and social media for renowned women's health organization Our Bodies Ourselves. She will share her experiences providing reproductive and women's health information in an activist context, discuss activist-oriented avenues for health information work, and will explore the tensions involved in balancing your convictions and your career.

Best Practices in Affordable Care Act Information Activism

Emily Vardell

PhD Student and Teaching Fellow, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina

Objectives: Following the implementation of the Affordable Care Act (ACA) in 2013, many librarians were called upon to answer questions about health insurance and provide access to quality information about both insurance and the ACA law in general. This presentation will share original research conducted to explore the services librarians are providing to support ACA information needs. These best practice profiles offer examples of the kinds of services librarians are providing in this arena and are presented as potential springboards for librarians seeking to become unbiased ACA information activists.

Methods: This two-part, mixed methods study began with a survey administered to health sciences librarians to capture the variety of ways librarians addressed health insurance information needs. These results paint a picture of large scale trends in the types of ACA services librarians are providing. The study then focused on specific examples of current best practices obtained through semi-structured interviews.

Results: The nationwide trends identified through the survey demonstrate what librarians are currently doing and bring attention to areas where librarians could be doing more (e.g., obtaining ACA-related training, proactively market services, etc.). The best practice profiles identified through the semi-structured interviews provide clear examples of the kind of ACA information services

librarians are providing. These profiles include information mediator, programming host, research support, presentation support, embedded clinical support, and librarian advocate.

Conclusions: Each of the profiles will be presented to demonstrate how librarians can become ACA information activists in their institutions. These specific, real-life examples demonstrate how librarians are taking on ACA information activism within their job responsibilities and may provide concrete strategies for how other librarians can undertake new projects and initiatives in ACA and health insurance information services.

Promote - Protect - Serve: Librarians in Community Action Partnership

John Reazer

Medical Information Services Librarian, University of Florida, Jacksonville, Florida

Jennifer A. Lyon, AHIP

Biomedical & Translational Research Librarian, Stony Brook University, Stony Brook, New York

Objectives: Academic health center (AHC) librarians on two campuses make outreach efforts in their respective cities. The ‘town and gown’ splits between universities and local communities can be overcome by shared commitment to public service projects.

Methods: Librarians are skilled at finding information for people in times of need and dedicated to helping people help themselves and each other. However, it can be a challenge to reach out to people who need help, but don't know how or where to ask. Access to library facilities isn't always easy for some members of the public. And what if the library itself is threatened with closure? This presentation will discuss three case studies of medical librarian involvement in community service: adult literacy tutoring, instruction on online privacy at a community center, and volunteering through a public library friends group.

Big Data, Big Opportunities: Librarians as Activists in the National Institutes of Health (NIH) Big Data to Knowledge Initiative

Lisa M. Federer, AHIP

Research Data Informationist, National Institutes of Health, North Bethesda, Maryland

Kevin Read

Knowledge Management Librarian, NYU School of Medicine, New York, New York

Susan L. Roy

Librarian/SNOMED CT Support Coordinator, National Institutes of Health, Bethesda, Maryland

Objectives: The National Institutes of Health's (NIH) Big Data to Knowledge (BD2K) initiative aims to increase availability and transparency of research data and better leverage “Big Data” technologies. Given librarians' expertise in working with all forms of information, BD2K leadership enlisted several librarians in the initiative. This paper will discuss how three of those librarians have

engaged with the BD2K initiative.

Methods: The NIH BD2K initiative was created to address challenges facing biomedical scientists in the increasingly data-intensive, data-driven, “Big Data” research enterprise. This large, multi-year initiative includes efforts aimed at designing tools and methods for data analysis, creating data-related training opportunities, and aiding the broad use of data standards. These activities could help increase reuse of shared research datasets. Librarians have participated in BD2K efforts in several capacities, including performing research to inform the BD2K’s desire to build a national data catalog, conducting outreach to NIH institutes and centers, representing stakeholders within the library community on BD2K committees, and providing evidence and advice on metadata and standards. The authors of this paper will elaborate on the importance of librarians’ perspective in these efforts, and how librarians can become data activists at their own institutions.

Results: The continued involvement of librarians in BD2K, as well as the creation of several library-specific grant opportunities, is evidence of the importance of libraries in this emerging area. As the first round of BD2K grants begins to generate outputs like new data resources, practices, and policies, librarians will continue to be crucial in providing training and expertise to their users.

Conclusions: Librarians’ unique knowledge and skills make them important to the work of the BD2K Initiative and similar efforts to enhance researchers’ data skills and foster communities of practice around data science. In addition to involvement at the national level, librarians can play an important role as data activists at their own institutions.

Monday, May 18, 10:30 AM – 11:55 AM
Room: Austin Convention Center, Level Four, Room 19B

Research Section

Failing Forward: Leveraging the Unexpected to Create New Opportunities

Carrie L. Iwema, AHIP

Information Specialist in Molecular Biology, University of Pittsburgh, Pittsburgh, Pennsylvania

Andrea M. Ketchum, AHIP

Reference Librarian, University of Pittsburgh, Pittsburgh, Pennsylvania

Melissa A. Ratajeski, AHIP

Reference Librarian, Health Sciences Library System, Pittsburgh, Pennsylvania

Objectives: Last year our library surveyed researchers at a large health sciences academic institution regarding their current data management practices. This presentation will address the challenges discovered upon data analysis, such as unequal response rate across demographics and survey instrument design issues.

Methods: A survey instrument consisting of 25 multiple choice and open ended questions was designed to gather the data management practices of health sciences researchers. The survey was piloted and modified before administration to researchers recruited via multiple methods. Data were interpreted using descriptive statistics such as frequency and percentages. Fisher's exact test was used to determine any associations between categorical variables. During analysis we discovered that aspects of our design, such as allowing multiple response questions, posed significant challenges and added to the time needed to code and clean the data. Although we derived meaningful conclusions from the results, a richer outcome, requiring less librarian effort, could have been possible with alterations to the questionnaire and recruitment strategy. For this presentation we humbly present lessons learned to help others benefit from our missteps.

Limited Perfectionism, or How I Learned to Stop Worrying and Love the Epic Fails

Robert E. Johnson

Clinical Services Librarian, University of Southern California, Los Angeles, California

Objectives: Three examples of failed projects in one librarian's experience are described, including an examination of how projects failed, leveraging those failures toward successful projects, and not allowing fear of failure become fear of success. The discussion includes ways to recognize the

difference between a stalled project and a failed project as well as differentiating between project failure and job failure.

Methods: In response to the university acquiring two hospitals, an academic medical library hired a librarian liaison to engage with clinical staff. This position depends on the librarian's ability to connect with clinicians and create projects requiring a librarian's involvement. Projects fail regularly, but most failure leads to new opportunities. The failed projects described are: * information resources integrated with electronic medical record, * rounding with multidisciplinary intensive care unit, and * presenting at OB-GYN grand rounds. The projects are examined by answering: * why the project failed, * how the relationship with clinical faculty was affected, * what opportunities rose from the ashes of the failed project, and * what is the professional impact of the failed project.

Balanced Scorecard Implementation for Health Sciences Libraries: Expectations and Surprises

Keith W. Cogdill, AHIP

Director, National Institutes of Health, Bethesda, Maryland

Objectives: Understand the balanced scorecard's potential as a strategic planning and performance management tool for health sciences libraries. Welcome what may be unexpected as part of a balanced scorecard implementation.

Methods: Following a brief review of the balanced scorecard approach to strategic planning and performance management, we outline the phases of implementation that can be anticipated. We highlight the rewards, unexpected challenges, and lessons learned from the implementation of the balanced scorecard at a health sciences library serving a large biomedical research institution.

Results: The implementation of the balanced scorecard for a health sciences library can be expected to follow a series of phases that typically unfold over two to four years. These phases include: organizational assessment; strategic planning; establishment of performance measures; formulation of strategic initiatives; refinement of measures and reporting; and regular review and adjustment.

Conclusions: A balanced scorecard implementation should be approached with the expectation that surprises will emerge along the way. A library's management team should be prepared to welcome the unexpected throughout the process. Successful implementation requires a high degree of commitment from a library's management team and key stakeholders. Implementing a balanced scorecard should be understood as a continuous journey, leading to (1) a process for moving strategy to action; (2) performance measures that are balanced across multiple perspectives; and (3) a cycle of continuous growth in the library's value for the larger organization.

Turning Lemons into Lemonade: Making Negative Research Results Useful

Linda M. Hartman, AHIP

Reference Librarian, University of Pittsburgh, Pittsburgh, Pennsylvania

Objectives: Humans tend to shy away from spreading the word when things do not go the way we planned. Therefore, we are the only ones to learn from our "mistake". Communicating negative results through publication saves time, money, and other valuable resources. Educating librarians and their patrons of the importance and benefits of publishing negative research results is this paper's goal.

Methods: Awareness of the problem is the first step. This will be accomplished by outlining the types of reporting bias associated with negative results. The resulting impact on researchers, clinicians, and ultimately patients will be discussed. Encouraging participation of negative results by librarians and our patrons will be done through education of editorial policies toward negative results as well as examples of journals whose aims are to publish them.

Results: Selective Outcome Reporting is one type of bias that occurs when negative study results are not published. Another is the File Drawer Effect which can lead to Time Lag and Citation biases. The longer it takes for an article to get into the publication pipeline the longer it takes for it to be cited by others. This skews the literature toward positive results. Therefore, those writing literature reviews and the clinicians reading them are not getting the whole story and are making judgements based on incomplete information.

Conclusions: The solution to this issue will need to come from many different directions. Researchers need to realize the importance of all their results. Editors and publishers need to encourage authors to keep them out of their file drawers. Administrators need to provide a safe environment for all research outcomes. Librarians need to educate their users on journals whose focus is on negative results and where to look for them.

Monday, May 18, 3:00 PM – 4:25 PM
Room: Austin Convention Center, Level Four, Room 18A

Collection Development Section

Issues in Interprofessional Education

Developing an Interprofessional Education Event

Elizabeth R. Lorbeer, AHIP

Library Director, Western Michigan University School of Medicine, Kalamazoo, Michigan

Emma O'Hagan

Medical Librarian, Western Michigan University Stryker School of Medicine, Kalamazoo, Michigan

Martha Knuth

Medical Librarian, Western Michigan University Homer Stryker MD School of Medicine, Kalamazoo, Michigan

Objectives: This paper discusses the year-long planning and development of interprofessional education (IPE) programming between three separate universities of medicine, pharmacy and nursing and allied health programs and two local hospitals in effort to identify learning experiences of mutual benefit for undergraduate and graduate health sciences students.

Methods: A committee of health care professionals, that included a medical librarian, met once a month for a year to identify IPE activities to use for a shared course for health profession students to hear about and experience interprofessional learning. A year long lecture course was designed to foster opportunities for interprofessional activities across the different disciplines programs. The medical librarians took the lead in designing the School of Medicine's Common Read program to support an IPE activity. Students gain awareness of cross-disciplinary aspects and integration of health care teams, and the use of facilitated discussion allowed individuals to express their feelings and beliefs by participating in guided discussions with other professional students following the event. This paper will share the successes and challenges in finding an activity that engages a wide health professional audience.

Results: The first Common Read program was a general success in that it attracted a mixed of students, residents, faculty and practitioners from all the health programs and local hospitals. The feedback from the Common Read program showed that participants wanted a shorter book talk and longer time spent on discussion questions. To make it easier for all participants to partake fully in the Common Read, the librarians are experimenting with using an essay published in intellectual magazine and identifying more facilitators from private practice.

Conclusions: The Common Read event will be renewed for 2015 as it met all the schools' desire to offer an IPE event. Students gained an understanding of complex issues relevant to the health care professions by attending this event. Overall, students gained awareness of cross-disciplinary

aspects and integration of health care teams by participating in guided discussions with other professional students.

Evaluation of Behavioral Competencies in Interprofessional Clinical Informatics Education and Practice: Findings from a Systematic Review of the Literature

Sarah K. McCord

Associate Professor and Associate Director for Information Literacy Services, Massachusetts College of Pharmacy and Health Sciences, Boston, Massachusetts

Robin A. Harvan

Professor and Director of Health Sciences Programs, Massachusetts College of Pharmacy and Health Sciences, Boston, Massachusetts

Objectives: The overall intent of this study was to conduct a systematic review focused on impact evaluations, such as behavioral changes or improved clinical outcomes, of interprofessional clinical informatics training in both educational and practice settings. Investigators reviewed relevant studies of methods and results of impact evaluations in two settings: competency-based interprofessional education; and team-based collaborative clinical practice.

Methods: Systematic searches of the professional literature were conducted in MEDLINE (1946-2013), CINAHL (1981-2013), ERIC (1966-2013), PsycINFO (1806-2013), and EMBASE (1980-2013). Searches employed controlled vocabularies unique to each database for maximum retrieval and reproducibility. A hand search of a review of interprofessional collaborative practice and education was also conducted. Candidate articles were screened for potential inclusion at two different stages for each of the review objectives. Inter-rater reliability, as measured by Cohen's Kappa, was determined after the first screening, and differences were resolved through discussion with a neutral third party. Full text copies of candidate articles were then subjected to a second screening for exclusion criteria. Articles were ultimately included in the final analysis if, after reviewing the full text, reviewers agreed that the articles were not subject to exclusion and otherwise met all identified inclusion criteria.

Results: Systematic searching resulted in the identification of 1287 related to current methods and results of impact evaluation of competency-based interprofessional clinical informatics education (Objective 1), while 335 related to impact evaluation of collaborative clinical practice using clinical informatics (Objective 2). Of the 1287 articles identified relating to Objective 1, 17 studies remained after both screenings and were included in the narrative synthesis. Of the 335 articles identified for Objective 2, 6 studies remained after review of the full text of the articles. The narrative syntheses evaluated article content using the Kirkpatrick Four Levels model of training evaluation.

Conclusions: Evidence to support impact evaluation of competency-based interprofessional clinical informatics education in collaborative care clinical practice remains limited. For education to impact practice, the two must be linked. More rigorous evaluation research studies are needed to demonstrate the impact of competency-based interprofessional clinical informatics education.

Breaking the Limits of Interprofessional Education: Library Faculty Integrating into Interprofessional Education (IPE)

Mary E. Edwards, AHIP

Distance and Liaison Librarian, University of Florida, Gainesville, Florida

Rae Jesano, AHIP

Liaison Librarian, University of Florida Health Science Center Library, Gainesville, Florida

Hannah F. Norton

Reference & Liaison Librarian, University of Florida, Gainesville, Florida

Nina C. Stoyan-Rosenzweig

Archivist, University of Florida, Gainesville, Florida

Objective: Our institution has been a pioneer in the development of Interprofessional Education programs. The unique Interdisciplinary Family Health (IFH) course involves students from all six HSC colleges in a year long, service course focused on teamwork in health care. While the library has traditionally provided limited support for this course, library faculty increasingly are integrating in this course and other IPE activities in and new and exciting ways.

Methods: The IFH course includes more than 1,000 students from all six HSC colleges. Students are assigned small classes of 16 and within each class form small groups of 4. Each small group works with one family throughout the course with the end goal of helping to impact their health in potentially broad and generally non-clinical ways. Two library faculty (one librarian and one archivist) have been instructors in the IFH course for years. As instructors they lead course discussion (with a co-instructor), provide feedback on student assignments, and grade papers. Additionally, other liaison librarians in the department have been meeting with the IFH students to provide information about resources they may find useful as they are working with their families.

Results: Over the last few years library faculty have increased their involvement with interprofessional education. As the colleges become more involved in interprofessional education, library faculty will have more opportunities to train other faculty in the use of information resources within interprofessional teams; this will be particularly useful in IFH, ensuring that all students receive information about library resources, not just those with library faculty as instructors. There will be even more opportunities for our librarians to be involved in interprofessional education as our programs change to keep up with new accreditation guidelines, such as the 2016 guidelines for pharmacy education. Additionally, the remodeled library provides a neutral space conducive to interprofessional collaborative groups of students.

Conclusions: Library engagement with and support of IPE helps pre-clinical health science students navigate the changing landscape of health information and explore the ways in which libraries and librarians can impact both health care professionals and consumers. Regardless of activity level, whether there is currently high or low involvement with IPE, there is always room for growth. Meeting with administrators to discuss how the library can participate and enhance interprofessional education programs should be a priority for the library wanting to become more involved.

Interprofessional Information Literacy Education for Nursing, Allied Health, and Pharmacy Freshmen

David A. Nolfi, AHIP

Health Sciences Librarian & Library Assessment Coordinator, Duquesne University, Pittsburgh, Pennsylvania

Marcia Rapchak

Instruction Librarian, Duquesne University, Pittsburgh, Pennsylvania

Lori J. Marra

Clinical Instructor, Duquesne University, Pittsburgh, Pennsylvania

Christine K. O'Neil

Professor, Duquesne University, Pittsburgh, Pennsylvania

Melanie T. Turk

Assistant Professor, Duquesne University, Pittsburgh, Pennsylvania

Objectives: Librarians partnered with faculty in the nursing, allied health, and pharmacy schools to create an interdisciplinary, health sciences version of a required, information literacy course for freshmen. Our objectives included providing early opportunities for interprofessional collaboration, measuring changes in students' confidence with information literacy skills, and establishing a baseline of students' readiness to engage in interprofessional learning.

Methods: Course registration was targeted to include 10 students from each school. Course work included formulating research questions using PICO, finding information resources relevant to health care professionals, evaluating literature, and working in interdisciplinary groups. We hypothesized that participating in an interprofessional course would create a greater sense of confidence and increased understanding of the relevance of information literacy skills in the students' academic and professional futures. Thus, pre- and post-class surveys were designed to measure these changes and compare results with other health sciences students enrolled in non-health sciences versions of the course. The authors also administered the Readiness for Interprofessional Learning Scale (RIPLS) at the beginning and end of the semester. In addition to measuring changes in RIPLS scores, the authors plan to use the results as a baseline for future interprofessional education efforts.

Results: Students in the health sciences version of the course (N=27) rated the relevance of the course to their college studies (1.2%) and careers (3.3%) slightly higher than students in general sections (N=574). Scores were also higher for college studies (2.3%) and careers (5.1%) when compared to health sciences students in other sections (N=295). Independent *t*-tests indicated these results were not statistically significant, possibly due to the small sample of students in the health sciences section. Responses to the pre- and post-class RIPLS survey suggested that students recognize that interprofessional learning will help them understand their own roles and the roles of other health professionals. However, the results also suggested that these freshman respondents believe that they can learn more in classes focused on their own disciplines.

Conclusions: Students in this class were in the earliest stages of their academic programs. Thus, the students' understanding of their future professional roles, interprofessional learning (or work), and evidence-based practice was very limited. This course gave students a first experience with

interprofessional learning and EBP. It represented a starting point for future interprofessional learning courses and provides a baseline for students' growth.

Monday, May 18, 3:00 PM – 4:25 PM
Room: Austin Convention Center, Level Four, Ballroom E

Corporate Information Services Section

Alternative Services: More than Traditional Libraries

More than a Pretty Picture: Data Visualization and Research Communication Skills

Jackie Wirz

Director, Professional Development Center | Research Data Specialist, Oregon Health & Science University, Portland, Oregon

Objectives: Research communication skills, ranging from data visualization to pitching research projects to industry, are essential to a successful scientific career. Too often, however, scientists receive no formal training in these skills. Our library has developed a variety of research communication skill services to help fill this need.

Methods: In order to address the need for basic research communications skills, our library has begun to offer consultations on data visualization, poster presentations, technical talks, layperson lectures, 3 Minute Thesis talks, TED style-presentations and other skills as needed by individual researchers. The success of several invited lectures and open workshops on data visualization has led to a University-wide class being led by the library which has enrolled students and faculty from across a wide swath of departments and programs. This has greatly enhanced our reputation on campus not only as a research collaborator, but as a connector of people and ideas.

Powerful Partners Make E-Science and Data Management a Success

Pamela L. Shaw

Biosciences & Bioinformatics Librarian, Northwestern University Feinberg School of Medicine, Chicago, Illinois

Cunera M. Buys

E-Science Librarian, Northwestern University, Evanston, Illinois

Objectives: Many libraries have E-Science or data management librarians or committees. Making data services successful requires partnerships outside the library, too. This paper outlines the creation of an E-Science Working Group (ESWG) containing members from libraries, research computing, office for sponsored research and enterprise data warehouse. We will share our results from our digital data management survey and other partnership endeavors.

Methods: The E-Science Working Group was formed of members from the libraries and research computing. We developed a survey of data management practices across the entire university including all disciplines in late 2013 using Qualtrics survey software and analyzed the results in spring 2014 utilizing Atlas.ti and Qualtrics analytics. Because of the interest raised by the survey, we embarked on several other projects: 1) a bioinformatics data analysis survey and workshop series; 2) an extended investigation of data sharing and management by early childhood researchers utilizing literature review, Data Curation Profiles interviews and email questionnaires; 3) an investigation of Data Use Agreements at the university and formed a group to write policy on data use agreements and 4) began an analysis of NSF Data Management Plans at the institution to identify means of long-term data storage at the university.

Results: The results of the survey are being prepared as a university report and for publication in 2015. Results suggest that researchers are open to sharing data, but many researchers express frustration with organizing and storing data for short-and long-terms. As a result of this survey, we gained the attention of other campus groups and, recognizing that partners from the Office of Sponsored Research and Enterprise Data Warehouse were valuable, we recruited new members from those groups. These new partnerships raised the profile of the ESWG as a group that could produce results in data management issues.

Conclusions: Data management best practices at a research institution require partnerships that extend beyond university libraries. Developing relationships in offices for research and university computing can lead to more exposure and success for libraries embarking on data management endeavors.

Expanding and Enhancing Library Data and GIS Services: Implementing an Information Visualization Service

Lisa M. Federer, AHIP

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Douglas J. Joubert

Informationist, National Institutes of Health, Bethesda, Maryland

MaShana Davis

Information Architect, National Institutes of Health, Bethesda, Maryland

Objectives:

Librarians are increasingly pushing the limits to offer novel services in support of their users' information needs. This paper discusses a library-based information visualization service providing support for data visualization and Geographic Information Systems (GIS), offered as part of the library's larger "Technology Sandbox" initiative, which provides a space for experimentation with cutting edge technology and collaboration.

Methods: The library conducted two user surveys, one with a focus on data and the other on GIS, which helped inform development of the information visualization service. Support for GIS is provided primarily by a public health informationist, and a research data informationist supports the data visualization program. While the informationists already had some expertise in their respective service areas, they undertook training to gain the competencies and skills necessary to support the

information visualization service. GIS software and support is provided in a collaborative “pod” in the Technology Sandbox, and the data visualization service is offered at the library’s Data Sciences workstation. Continuous evaluation is conducted to assess the usefulness of the service, determine areas of need for future service offerings, and identify new technology and equipment needed to support the service.

Results: Initial response to information visualization offerings has been primarily positive. Classes in information visualization are well-attended and receive high scores on several evaluation criteria. In addition, a special interest group has been created to foster a community of practice with regard to information visualization, including an email listserv and quarterly happy hours. However, additional outreach is needed to promote the information visualization service, since many users are not aware that the library offers such services.

Conclusions: Although not traditionally associated with libraries, an information visualization service can be a successful addition to libraries’ offerings, fulfilling an important need among library users and reaffirming the library’s central role in the research enterprise. For librarians who are willing to learn new skills, providing support for information visualization can be an exciting way to engage with their users.

Using a Translational Architecture Framework to Capture Institutional Knowledge

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Zachary E. Fox

Assistant Director for Administration, Vanderbilt University Medical Center, Nashville, Tennessee

Objectives: To describe how the Eskind Biomedical Library at Vanderbilt University Medical Center (VUMC) successfully captures the knowledge and best-practices learned from key institutional

initiatives through the use of an online management matrix tool designed to aid research teams in quickly translating discovery into action.

Methods: As the number of unique institutional initiatives continues to grow, the library has created a knowledge management architecture for an online tool that records-through sophisticated matrix rules-processes and resources for the purposes of quick identification and reuse. The “Translational Architecture Framework” captures best-practices and lessons learned from a diverse array of projects spanning from a world-wide, freely accessible genomic cancer database to the institution’s efforts in developing revised medical school curriculum. This tool, organized as an interactive matrix, relies on domain nodes and functionality trees, standardized ways of organizing competencies and resources, to characterize previously attained knowledge from innovation projects. The intersection of these domain nodes and represented projects provides researchers and investigators with initiative-specific information that allows users to quickly explore its multi-faceted connections and facilitates the process of knowledge management throughout the entire medical center.

Conclusions: Since its inception, the Translational Architecture Framework has captured the organizational knowledge of the Vanderbilt University Medical Center’s most innovative and impactful initiatives within the last five years. The Framework serves as a tool to identify general research and organizational concepts and reduce redundancy by enabling researchers to identify existing relevant institutional resources, including domain experts, for future projects. The Eskind Biomedical Library’s Knowledge Management specialists, thus far, have organized the concepts into ten generalizable domain nodes branching into sixty-four functionality concepts that are applicable across projects and disciplines. Current transformative projects represented in the tool include precision medicine, patient education, the revamped medical school curriculum, and multiple evidence provision projects including diagnostic testing; clinical genetic information; standardization and best clinical practice; and national guideline development. In light of new developments and expansion in the medical center, the Library is investigating and expanding the Framework’s potential and re-purposing for new internal and external uses relating to patient care, research, and education. This will require a core group of staff members to review and revise current content while incorporating new nodes and domains.

Monday, May 18, 3:00 PM – 4:25 PM
Room: Austin Convention Center, Level Four, Room 18B

History of Health Sciences Section

Artifacts of Earlier Ages: Keeping the History of the Health Sciences Weird

Keeping the History of Health Sciences Weird

Stephen Greenberg

Coordinator, Public Services, National Library of Medicine, Bethesda, Maryland

The Memory Makers of Human Anatomy Studies at the University of Michigan

Michelle B. Bass

University Library Associate, University of Michigan, Ann Arbor, Michigan

Barbara Shipman

Senior Associate Librarian, University of Michigan, Ann Arbor, Michigan

Only those who are written up in the books stay alive forever and their names will never die.
– Leonardo Fioravanti, Del regimento della peste, fol. 70r.

The University of Michigan Medical School welcomed its 163rd class of 177 students in August 2014. During their orientation, my colleagues and I from the Taubman Health Sciences Library introduced the students to the many library resources to complement their studies, including the online textbook databases in Access Medicine, ClinicalKey, and StatRef! Medical students are provided with detailed images of the musculoskeletal system right from their computers without the need to visit an anatomy lab but also still take basic gross anatomy courses and practice their understanding of human systems through clinical simulations. Medical students are not required to take a history of medicine course and therefore might not have the opportunity to learn more about how the first iterations of their textbooks and anatomical science studies were produced. If they do want to search for these answers, they will most likely be directed to the Taubman Health Sciences Library. It was in the library's collection that I sought the answers to the following research questions:

- 1) Who are the memory makers of human anatomy studies and why are they considered so?
- 2) How does the collection and preservation of memory maker's artifacts in an archive contribute to the collective memory about their importance in the anatomical science field?

The library moved their collection of rare books to the University's Special Collection Library in

preparation for their building remodel and space reallocation; these 8500 medical tomes are now collectively called the History of Medicine collection. Some of the most highly touted pieces in the collection include works from two rebellious anatomists from the 1500s, Andreas Vesalius and Leonardo Fioravanti. Our collection also includes two volumes written by anatomists Adriaan van Spiegel and Bernard Siegfried Albinus, 100 and 200 years respectively, after Vesalius' seminal works.

This paper is as much a case study of the memory maker as it is about the archive that holds their seminal works. I will share information about the memory makers, the memory users, and finally the library as the physical location charged to preserve the history of the field of anatomical sciences.

The Beauty of Brains, Tumors, and Patients: The Cushing Center

John Gallagher

Interim Director, Yale University, New Haven, Connecticut

Melissa Grafe

Librarian for Medical History, Yale University, New Haven, Connecticut

Terry Dagradi

Coordinator, Cushing Center, Yale University, New Haven, Connecticut

Janis Glover

Education Librarian, Yale University, New Haven, Connecticut

Objectives: To provide an introduction into the esoteric yet beautiful Cushing Brain Tumor Registry, an extraordinary collection containing brain and tumor specimens, clinical photographic portraits of patients, notes, microscopic slides, and other related materials and ephemera gathered by Dr. Harvey Cushing (1869-1939), the father of modern neurosurgery, during his remarkable career.

Methods: Motivated initially by a desire to repurpose under-utilized stacks space, the library collaborated with the Chair of the Department of Neurosurgery to reconnect two of Dr. Cushing's most cherished collections: his treasured rare books that remain the centerpiece of the Medical Library's historical collections, and the fascinating brain tumor registry he compiled between 1902 and 1932. Rediscovered in a dormitory building sub-basement by adventurous medical students, the hundreds of dusty specimen jars and boxes of thousands of glass plate negatives now live in an inspired museum-like space within the Medical Library.

Results: Painstakingly conserved, hundreds of tumor specimens and brains diseased by meningiomas, glioblastomas, haemangioblastomas, and other cancers, sit preserved in back-lit, leaded crystal jars filled with golden and amber hued formalin. Striking and mysterious portraits of patients, old and young, stand framed against warm-colored hardwood cherry walls; clues perhaps to the connection between human expression and the brain. Fastidious notes that detail each operation, drawings quickly sketched by a gloved surgeon to document an operating field, patient records, microscopic slides of shaved tumor samples, personal effects, and several of Cushing's most prized rare books complete the collection.

Conclusions: The Cushing Center has brought renewed life to a stale and dreary stacks space, but more importantly has revitalized an almost forgotten collection of specimens and materials central to

the earliest days of modern neurosurgery, and of unique historical significance. Much more can be learned from this collection. Therefore, to form a fuller understanding of the each disease and of the story of each individual patient, library staff built and are currently populating a homegrown database in hopes to relink each specimen, portrait, record, and note.

Spines, Splints, and Sanitation: The Forgotten History of Railway Surgery

Elena S. Azadbakht

Reference Librarian for Health Sciences and Assistant Professor, University of Southern Mississippi, Hattiesburg, Mississippi

Objectives: To illustrate how railway surgery – though largely forgotten and unexamined today – was a unique, robust and influential sub-field of medicine from the late 19th to the mid-20th century by showcasing illustrations and photographs from *The Railway Surgeon*, the journal of the now-defunct National Association of Railway Surgeons.

Methods: Although it is now a forgotten aspect of American medical history, railroad surgery played a large role in medicine from the post-Civil War era to the mid-20th century. According to Mark Aldrich, railroads employed about 10 percent of all physicians by World War I. These physicians often cared for both railroad employees and customers. *The Railway Surgeon* showcases this history through articles, letters, illustrations, and photographs depicting the work of railway surgeons – work which ranged from the mundane to the unique. This paper will examine illustrations and photographs portraying some of the more unique and forgotten concerns of railroad surgeons, such as treatments for “railway spine” and Holmgren’s yarn test for colorblindness, and will discuss the impact railroad surgery had on the history of American medicine.

Results: Railway surgery's innovations and pioneering efforts impacted health care provision in the United States, particularly in the areas of occupational health and preventative medicine. This subset of medicine also facilitated professional discourse and led to the development of professional organizations. Due to the size and power of the railroad industry at the time, the discussion surrounding many of the issues railway surgeons faced helped shape certain aspects of public health policy.

Conclusions: Since railway surgery impacted 19th and 20th century American medicine, libraries, archives, and museums should look to acquire and preserve artifacts that document its history. Moreover, this forgotten piece of the history of American medicine needs to be explored more fully in the scholarly literature.

Medical Moulage 3D Digitization and Preservation Project

Julie Bolin

Director, Medical Library & Biomedica, Baylor Scott & White Health Central Division, Temple, Texas

Objectives: This paper will explore creating 3-D images of medical moulages (wax models). The goal is to make the moulages accessible and to educate about this type of medical art used historically as a teaching tool. The creation of 3-D images also provides the means to protect and

preserve the moulages that were created between 1935 and 1955.

Methods: This paper discusses the process of creating 3-D images of medical moulages. The moulages are collected, identified, prepared for preservation, photographed, and finally packed in archival quality foam and boxes. Photographs are converted to 3-D images and uploaded to the website where the librarian adds descriptions and metadata to make them searchable. The final step is to publicize the website. This will be done through local media, in-house publications, and mailers to the members of the National Network of Libraries of Medicine (NN/LM), as well as notifications sent to various state and national library and archival associations. This paper is made possible through the cooperative efforts of the Pathology Department with the Medical Library, and the expertise of the Graphic Services Department. Funding for this project has been granted by the NN/LM.

Results: This paper will make 300 of the institution's unique medical moulages available for viewing as interactive 3-D images online. It will introduce a wider audience to moulages, how they were made, and why they were useful at this institution. It also ensures that the moulages will be properly protected and preserved.

Conclusions: This project has great awareness potential. Medical moulages are not well known, yet are an important part of medical history and medical education. The moulages are old and fragile and should not be handled. The 3-D images allow for close inspection from all sides without needing to touch the original. The original is safely packed away.

Monday, May 18, 3:00 PM – 4:25 PM
Room: Austin Convention Center, Level Four, Room 18C

Leadership and Management Section

Limitless Leaders in Our Institutions

Difficult Conversations: Strategies to Make Sure They Enhance Rather than Ruin Your Leadership

Madeline M. Maxwell

Professor of Communication Studies, The University of Texas at Austin, Austin, Texas

Everyone has difficult conversations. They are an important part of leadership and handling them well is crucial to your success. It is shockingly easy to ruin past success by failing (or avoiding) the difficult conversations. Never fear. There is help available. We do know some things that work or increase the likelihood of strengthening the workplace by handling such difficult conversations well. This fun (and sometimes scary) presentation will share some of that knowledge with you.

Panel Discussion

Donna R. Berryman

Senior Associate Director, Medical Center Libraries & Technologies, University of Rochester Medical Center, Rochester, New York

Laura K. Cousineau

Director / Instructor, Dartmouth College / Geisel School of Medicine, Hanover, New Hampshire

Cynthia K. Robinson, AHIP

Director, George T. Harrell Health Sciences Library, Penn State Hershey, Penn State College of Medicine, Hershey, Pennsylvania

Panel participants will speak as a follow-up to the speaker's talk.

Monday, May 18, 3:00 PM – 4:25 PM
Room: Austin Convention Center, Level Four, Ballroom F

Medical Informatics Section

Informatics without Limits

The Response and Recovery App in Washington (RRAIN): A Statewide Disaster Information Partnership

Tania P. Bardyn, AHIP

Associate Dean of University Libraries, Director of the Health Sciences Library, and Director, National Network of Libraries of Medicine, Pacific Northwest Region, University of Washington, Seattle, Washington

Adam Garrett

Systems Manager; Technology Coordinator, National Network of Libraries of Medicine, Pacific Northwest Region, University of Washington, Seattle, Washington

Kerry Kirk

HEALWA Web Specialist; Acting Health Sciences Library Web Specialist, University of Washington, Seattle, Washington

Gail Kouame

Assistant Director for HEALWA, University of Washington, Seattle, Washington

Jamie M. Gray, AHIP

Associate Director, Administration & Liaison Services, University of Washington, Seattle, Washington

Emily J. Glenn, AHIP

Community Health Outreach Coordinator, National Network of Libraries of Medicine, Pacific Northwest Region, University of Washington, Seattle, Washington

Mary Beth Simiele, AHIP

Librarian, Virginia Mason Medical Center, Seattle, Washington

Objectives: The RRAIN Washington app helps Washington State first responders respond to disaster events by providing an authoritative knowledge base contained within an iOS app and mobile-optimized website. This state-wide collaboration provides access to National Library of Medicine (NLM) resources and vetted state-specific information. Librarians led “train the trainer” workshops to teach responders how to employ mobile resources in their communities.

Methods: One health sciences library designed and built a website and mobile app called

Response and Recovery App in Washington (RRAIN Washington) for first responders to use in disaster response and recovery events. The University of Washington Health Sciences Library identified partner institutions to participate in the project, funded by an NLM Disaster Health Information Award. The project team worked with emergency responders and state officials, who provided input on relevant situational awareness and emergency health information resources via a focus group. Incorporating feedback from the focus group, librarians worked with IT developers to create a beta mobile-optimized website and mobile app, which was subsequently tested with selected partners.

Results: The RRAIN Washington project team worked with public health partners to develop initial content. A focus group session was held to assess needs and understand information use scenarios. Participants provided critical, constructive feedback and affirmed that first responders in Washington lack -- yet desire -- consolidated, state-specific situational awareness information resources available on a personal mobile device. The main deliverable, an iOS app, could partially meet this need. Train-the-trainer workshops were presented to response community members in four counties in Washington. Training evaluations assessed participants' knowledge of emergency response and management resources and of disaster information management tools.

Conclusions: With the support of a diverse project team and strong existing relationships with community stakeholders, similar state-specific disaster information projects can be deployed to meet first responder information needs. The primary target audience of first responders was reached through on-site workshops, with higher attendance at emergency management professional conferences. The focus group was essential for assessing user needs and developing stronger relationships with informal partners. Participants confirmed that not all users will use an iOS app, hence, the web site had to be mobile-optimized for use across devices. Building a mobile-optimized website took less time than expected, however, programming an app required more time and expertise outside of the library. Librarians pursued many iterations of selection and organization of resources throughout the project, increasing subject knowledge of the project team overall.

Informatics at the Bench: Collaboration between Researchers and Librarians to Deploy an Electronic Laboratory Notebook System

Douglas L. Varner, AHIP

Senior Associate Director / Chief Biomedical Informationist, Georgetown University Medical Center, Washington, District of Columbia

Katherine Greene

Library Assistant, Georgetown University, Washington, District of Columbia

Jett McCann, AHIP

Senior Associate Dean for Knowledge Management; Director, Dahlgren Memorial Library, Georgetown University Medical Center, Washington, District of Columbia

Linda A. Van Keuren, AHIP

Associate Director for Resources and Access Management, Georgetown University Medical Center, Washington, District of Columbia

Objectives: Bench scientists use the laboratory notebook as a daily record of experimentation. Entries in laboratory notebooks document the intellectual progression of bench work contributing to

the overall evolution of the scientific knowledgebase. This presentation outlines librarian participation in electronic laboratory notebook system deployment. These systems greatly enhance data portability, accessibility and ensure continuity of the research process.

Methods: Georgetown University Medical Center (GUMC), Dahlgren Memorial Library (DML) has collaborated on a regular basis with an active research laboratory at GUMC. This laboratory is composed of a multi-disciplinary team of basic and clinical scientists embodying the trajectory of translational science: research progressing from bench to bedside. This work led to DML librarians becoming aware of the use of an electronic laboratory notebook (ELN) system by the research group. Collaboration then began between the librarians, the research group and the ELN vendor to define a role for librarians in the deployment, use and potential for integration of library resources into the ELN interface. DML is now overseeing the funding and coordination of use of the ELN system and will lead efforts exploring integration of resources into the ELN using the electronic health record infobutton model.

Results: My results are not complete yet. If selected, I will come back into the system and enter my results after December, 2014.

Conclusions: My results are not complete yet. If selected, I will come back into the system and enter my results after December, 2014.

Design and Implementation of a Novel System to Quantify and Contextualize Research Impact

Steven Braun

Informatics/Data Services Specialist, University of Minnesota, Minneapolis, Minnesota

Jonathan Koffel

Clinical Information Librarian, University of Minnesota, Minneapolis, Minnesota

Objectives: To describe the development and launch of a scholarship analytics system which enables faculty and administrators to assess overall and department-level scholarly output and research impact using both traditional and novel metrics and visualizations.

Methods: Bibliometric data for all core faculty in the University of Minnesota Medical School are routinely extracted from Scopus and stored in a local database. This database currently includes nearly 70,000 publications from more than 2,000 faculty. Using these data, metrics including publication counts, impact indices, and citation counts are calculated and updated for administrative review on a regular basis. We designed a web-based interface named *Manifold* that provides customized metrics defined by administrators as well as novel visualizations of those metrics that help lend context and meaning. These facilitate informed comparison of research impact across individual faculty and departments and support a school-wide initiative to encourage and recognize scholarship and achievement. The interface was pilot-tested with faculty in the Department of Psychiatry at the end of 2014 to gather feedback on its value and ease of use and subsequently launched for campus-wide use in January 2015.

Results: Feedback and acceptance from faculty during the pilot phase was very positive and focused on adding features and visualizations rather than correcting underlying data errors. After development was completed, the system was disseminated across the Medical School and campus

at large at the end of January 2015 for use by individual faculty as well as administrators. In the months that have followed, *Manifold* has become an integral part of Libraries- and campus-level conversations on what form the assessment of scholarly impact takes across different disciplines. In addition, as other schools beyond the Medical School have begun to express interest in similar analytics for their own faculty, the University Libraries have begun to assess the ways in which our roles in managing and supporting researcher scholarship and discovery services are changing at a systems level.

Conclusions: Work on *Manifold* has stimulated discussion about how impact can be more effectively measured at an institutional level and across different disciplines. As institutions continue to experience increased pressure to assess achievement through data-driven approaches, libraries can demonstrate relevance and preeminence in providing context and expertise around scholarship writ large.

From Migration to Integration: Collaborating Outside the Library to Manage a Hospital Patient Education Repository

Jeremy T. Bartczak

Metadata Librarian, University of Virginia Health System, Charlottesville, Virginia

Cindy Westley

Patient and Family Education Coordinator, University of Virginia Health System, Charlottesville, Virginia

Derrick Stone

Objectives: A metadata librarian partnered with a hospital patient & family education coordinator and a web development expert to manage a patient education repository and integrate educational content into the University of Virginia Health System EHR system. Goals included implementing sound data and metadata management policies, migrating to an upgraded content management system, and dialing-in strategies for auto suggesting handouts using ICD-9 codes to meet Meaningful Use requirements.

Methods: The repository serves as a local source for patient education handouts. In spring 2014, a team began working to migrate the repository to an upgraded content management system and integrate that content into the local Epic EHR system. Collaboration and technology have been critical throughout the project, which is still ongoing. A metadata librarian established procedures for managing a digital collection of PDF handouts and migrating standardized metadata for the new repository. A hospital education coordinator collaborated closely with clinical departments to weed, select, and update content according to current patient information needs. Programming and web technology experts established workflows for uploading educational content from the repository into the EHR system. Finally, clinical staff are being consulted to help assign relevant ICD-9 code-lists to the handouts, which will auto-suggest content based on data in the EHR patient problem list.

Results: A current list of patient education handouts customized to UVA Health System needs is available for search and access via the repository. The repository continues to grow as content is migrated or supplied new from various clinical departments. A small sample of ICD-9 coded documents has been integrated into the Epic EHR clinical references activity. These results show great promise for meeting hospital Meaningful Use objectives.

Conclusions: Librarians can leverage content management and description skillsets to provide substantial contributions to patient education and Meaningful Use objectives. Active engagement and collaboration across disparate clinical, technological, and educational departments are critical to successful outcomes.

Monday, May 18, 3:00 PM – 4:25 PM
Room: Austin Convention Center, Level Four, Room 18D

Medical Library Education Section

Lucha Libre Distance Education

Getting MOOC'ed: Taking Online Training from Many to Massive

Emily J. Hurst, AHIP

Head, Research & Education, VCU, Richmond, Virginia

Objectives: This presentation looks at methods used to enhance an online class offered through Moodle. Four classes and feedback from over 250 participants provide information about the changing and challenging demands of online learning for professional development purposes.

Methods: From 2012 - 2014 four instances of an online class focused on online searching were offered to librarians. While the focus of the class is on online searching techniques (free search engines and more) the class provides information about online searching for health information as a way to assist library patrons in their search for health information. As such, the class attracts not only medical librarians but many other types of librarians. The online class quickly saw high levels of enrollment. Using methods to update the class allowed the instructor to open the class to more attendees, provide for more participant interaction and reduce the amount of paperwork for the instructor. New online methods including badges were recently added to the class to better facilitate learning and completion. Several technology related pitfalls resulted in changes to the class structure.

Results: Adding new technologies to an online class may be challenging but the benefits can be rewarding. Analysis of class completion data demonstrate that technology enhancements allowed more people to participate in the class over time but attrition levels remain high in this online environment. Despite MLA CE incentives the class sees a 40% or lower completion rate. In addition, qualitative feedback generally elicit positive feelings about the class. A look at class enrollment statistics finds that while the class is geared for medical and public libraries over half of the participants come from academic and/or special libraries.

Conclusions: Analysis of course data, including enrollment and completion statistics as well as qualitative class assessment and feedback, provides an overview of the increased success of this online class over a two year period. Further areas of investigation include analysis of class participants who did not finish the class as offered. New insights from feedback can be used by future class teachers to improve or enhance online learning environments.

New Collaborations: Using a Student Writing Retreat to Embed Library Instruction in a Nursing Program

Rachel C. Lerner

Public Services Librarian, Quinnipiac University, Hamden, Connecticut

Objectives: A nursing librarian, as part of efforts to become more embedded, helped create a mandatory research and writing retreat for matriculating graduate nursing students. The objective of this project was to offer intervention before students began written work and provide a forum whereby participants could learn about library resources, and practice and receive immediate feedback on their writing and citations.

Methods: School of Nursing faculty members were displeased with student writing. Students spanned a range of ages including adult learners returning to academia after many years, as well as recent students. A plan was developed to hold a mandatory research and writing retreat during the orientation period for all matriculating graduate nursing programs, both virtual and in-person. Key nursing faculty and the librarian collaborated on all content for this day-long event; the librarian delivered a significant portion of it. All content was made available virtually (including videos) the day of the retreat through a subject guide, both for asynchronous completion for virtual students, and for future reference. The program was well-received by students, provided a common writing and research base to all incoming graduate nursing students, and has cemented the relationship between the faculty and the library.

Results: My results are not complete yet. If selected, I will come back into the system and enter my results after December, 2014

Conclusions: My results are not complete yet. If selected, I will come back into the system and enter my results after December, 2014

Scaffolding Student Research: Collaborating with Public Health Faculty on Embedded Instruction

John Pell

Assistant Professor, Hunter College, Kew Gardens, New York

Objectives: The objectives of this study were to evaluate the library research instruction components of an established community health program and a newly developed environmental health program in order to understand the programs' effects on student experiences and determine targets for improvement in the newer environmental health program.

Methods: The programs' participants are graduate students in a large, urban school of public health. The community health program features a library research assignment that is graded by a librarian instructor and two optional library research instruction sessions. The environmental health program features two optional library research instruction sessions. In the community health program, student attendance at the library research instruction sessions was plotted against library research assignment grades and other course research assignment grades. Instructional faculty who teach in the programs were interviewed about their perceptions of the library research instructional sessions' impact and value.

Results: Attendance in the library research instructional sessions for the community health program is significantly associated with higher grades on both the library research assignment and on other research assignments in the course. The results for the attendance at the environmental health

library sessions are still being collected. Attendance rates at the community health library instruction sessions were significantly higher than attendance rates at the environmental health sessions. Students in the environmental health instructional sessions reported strongly positive experiences and faculty in both the community health and environmental health programs perceive a positive impact from the library instruction sessions.

Conclusions: While it is tempting to embrace the perceived positive impact of the library instruction sessions, the association between higher assignment grades and attendance at library instruction sessions might also be explained by the voluntary attendance policy tending to recruit more highly motivated students. Even if the instructional sessions cannot be conclusively shown to raise student grades, the perception of positive impact by program faculty and the positive experiences of student participants endorse the continuation of the instructional sessions. The higher rates of attendance associated with a librarian-graded assignment suggest a possible method to increase attendance at voluntary instructional sessions.

Opening Knowledge: Designing and Teaching a Massive Open Online Course (MOOC) for the World and Library Science Classroom

Lauren Maggio

Director of Research and Instruction, Stanford University School of Medicine, Stanford, California

Kevin Stranack

Coordinator of Community Services and Learning, Simon Fraser University, Burnaby, British Columbia, Canada

Objectives: To share our first-hand experience of developing and teaching the massive online open course (MOOC): Open Knowledge: Changing the Course of Global Learning. Open Knowledge was designed to increase learners', including librarians, understanding of open knowledge creation, use, dissemination, and evaluation, to collaborate with learners from other cultures and disciplines, and to work effectively in rapidly changing knowledge environments.

Methods: Open Knowledge is a MOOC, in that it is online, follows a traditional course format, and is freely available to anyone interested in participating. However, it was simultaneously offered for credit as a bilingual course at five institutions in Canada, the United States and Mexico. Offered in Fall 2014, this 13-week course enrolled over 10,000 global participants, including over 500 librarians, and 13 library students taking the course for credit in-person. In this presentation, we will report our findings and experiences of designing and teaching the course. Experiences in the LIS classroom will be presented to examine issues specific to librarian education and professional development. Special attention will be paid to the philosophical and logistical challenges that we faced as librarians planning, developing, and organizing a MOOC, especially the myriad of legal issues faced in its creation and delivery.

Results: My results are not complete yet. If selected, I will come back into the system and enter my results after December, 2014

Conclusions: My results are not complete yet. If selected, I will come back into the system and enter my results after December, 2014

Assessing Librarian Learning Needs over Time

Kay E. Deeney, AHIP

Educational Services Coordinator, University of California, Los Angeles, Los Angeles, California

Objectives: This study aims to analyze the differences in training issues of health sciences librarians over ten years based on responses from five surveys received by the Pacific Southwest Region of the National Network of Libraries of Medicine (NN/LM). This talk will discuss the trends during ten years of assessing learning needs such as attitudes towards distance and in person training, barriers, and topics of interest.

Methods: Librarians from the Pacific Southwest Region of the NN/LM answered learning needs assessments about training needs, barriers, continuing education credit, and topics of interest from 2005 through 2014.

The five assessments were used for planning training in the Pacific Southwest Region and were shared with relevant MLA chapters.

Demographic information such as length of time working with health information resources or services, type of library or organization and MLA chapter was also gathered. Five surveys over 10 years were sent out during a period of one month to various listservs. The results have been analyzed for similarities and differences.

Results: Preliminary results show that librarians over time are more interested in distance learning for updating and obtaining new skills. Interest in obtaining continuing education credits ranged from 26% to 50% over time not necessarily incrementally. Topic areas shifted over time with mobile apps being a significant request in 2014, while new technologies in 2005 focused on PDAs and blogs!

Conclusions: Surveying librarians in one highly populated region of the US may reflect the interests of librarians in other parts of the country. Over time librarians have indicated more acceptance of training via distance learning, no significant change in barriers; strong need for technology and database training such as PubMed. Surveys are reflective of time: current surveys show an emphasis on systematic reviews, older surveys focused on evidenced based practice.

Monday, May 18, 3:00 PM – 4:25 PM
Room: Austin Convention Center, Level Four, Room 19A

Nursing and Allied Health Resources Section

Code W: Expanding Librarian Roles in Writing and Publishing

Advancing Library Research: A Year in the Life of a Health Sciences Library Research Committee

Andrew Youngkin, AHIP

Emerging Technologies/Evaluation Coordinator, National Network of Libraries of Medicine, Southeastern/Atlantic Region, Baltimore, Maryland

Andrea G. Shipper

Research, Education and Outreach Librarian, University of Maryland, Baltimore, Maryland

Objectives: A Research Committee was formed at a large academic health sciences library in order to encourage staff to engage in library research. The committee provides training on conducting research and serves as a resource on the research process, including writing proposals, obtaining project funding, going through the IRB process, and publishing results.

Methods: The Research Committee, comprised of nine library staff members, will meet throughout the year to plan quarterly programming sessions on topics including:

- 1) What is research and how do I get involved?
- 2) Research methodology in the social sciences
- 3) Research funding and grant writing
- 4) Publishing your research

Sessions will be presented by both library staff and outside experts, and additional topics will be added as needed. The committee has also created a set of resources to assist staff in successfully pursuing research projects and disseminating the results, including a LibGuide with information about each programming topic and a set of library-specific procedures for conducting research. The Research Committee will conduct pre- and post-testing to assess library staff interest in and experience with research and determine the impact of committee programming.

Results: My results are not complete yet. If selected, I will come back into the system and enter my results after December, 2014

Conclusions: My results are not complete yet. If selected, I will come back into the system and enter my results after December, 2014

From Inception to Publication: Creating an Open-Access Education Journal

Sandra L. Bandy, AHIP

Chair, Content Management, Georgia Regents University, Augusta, Georgia

Melissa Johnson

Electronic Resources and Serials Librarian, Georgia Regents University, Augusta, Georgia

Andrew T. Kemp

Assistant Professor--Ed.S. Coordinator, Georgia Regents University, Augusta, Georgia

Objectives: As librarians expand their role in the publication process, the University Libraries worked with the College of Education to provide guidance on starting an open access education journal. Creating this open access journal reveals the publishing opportunities utilizing the institutional repository as well as the potential for collaboration with other university departments.

Methods: Previously the repository had been only used for disseminating published research, scholarship, and archival materials from the institution. A collaboration with the College of Education resulted in a new publishing opportunity. Using an open access repository as a publishing platform for an OA journal supported the college's goal to disseminate ideas and experiences of educators without access barriers. This paper describes the steps involved in developing a new open access publication including research into other open access journals, using Dspace, the repository's platform as a publisher, building the hierarchical structure of the journal, securing appropriate metadata to improve discovery in search engines, and establishing other protocols necessary for an open access peer-reviewed journal. This paper will also discuss the planning process, submission protocols, and branding standards. It will detail the challenges, accomplishments and outreach efforts to expand open access journal publishing.

The Role of the Librarian in Enhancing the Scholarly Activity of Residents: A Case Study

Young-Joo Lee

Senior Clinical Librarian, Howard University, Washington, District of Columbia

Objectives: This study will explore and measure the library's contribution to the improvement of resident scholarly activity, made mandatory at the author's institution in accordance with the Accreditation Council for Graduate Medical Education guidelines, by illustrating various teachings employed by the author to engage residents and demonstrating the positive impact of in terms of residents research outcomes.

Methods: The author's institution sponsors a total of twenty accredited residency and fellowship programs. To enhance residents scholarly activity, the author was invited to join the Graduate Medical Education Committee and requested to give a series of workshops to residents focused on improving their writing skills. The author designed the workshops drawing from Aristotle's theory of rhetoric, particularly on audience to help residents view research as a scholarly communication process. To measure the success of these workshops, the study will compare the research outcome

of different departments all of which received varying degrees of instruction from the author, both in terms of workshops and research consultations. It is hypothesized that those programs that engaged with the author more frequently will show an increase in their research output including but not limited to conference presentations, publications and grant proposals.

Results: My results are not complete yet. If selected, I will come back into the system and enter my results after December, 2014

Conclusions: My results are not complete yet. If selected, I will come back into the system and enter my results after December, 2014

Encouraging Scholarly Activity: The Role of the Hospital Librarian in the Formation of a Writers Club

Patricia L. Smith

Reference Services Librarian, Advocate Illinois Masonic Medical Center, Chicago, Illinois

Objectives: The Accreditation Council for Graduate Medical Education (ACGME) requires medical residents and faculty to participate in scholarly activity. Despite this mandate, our urban, medium-sized community teaching hospital offers limited writing resources. In collaboration with the Department of Internal Medicine, hospital librarians formed a Writers Club with the goal of encouraging scholarly activity while addressing common writing challenges.

Methods: A librarian at an urban, medium-sized community teaching hospital accepted the invitation to help facilitate a Writers Club. The reference librarian attends each Writers Club meeting, held weekly in the Library conference room. The meeting format is informal, with members sharing their writing accomplishments, asking for advice and suggestions, and setting goals for the next meeting. The librarian conducts literature searches, assists with formatting citations, copy edits manuscripts, and presents writing tips. Writing tips have included: using citation managers, navigating PubMed, adhering to author guidelines, and fixing common grammar mistakes per the American Medical Association Manual of Style. Challenges in implementing and promoting the club will be discussed, and key successes, such as an increase in the number of literature search requests, will be highlighted.

Results: Librarian participation in the Writers Club has led to increased visibility and knowledge of the Library and its resources, and has presented opportunities for professional collaboration. In the first year of the Writers Club, the number of literature search requests increased 237% from the previous year. The weekly Writers Club meeting provides clinicians with a set time to request literature searches, ask the librarian about available resources, and discuss barriers to research and writing in a safe and collaborative environment. After experiencing a drop in attendance in its fifth month, the Club was redirected to focus on residency research projects as opposed to general writing projects. The Writers Club is open to everyone and attendance ranges from 4-10 people each week.

Conclusions: The formation of a Writers Club comes with plenty of trial and error, and the meeting format, frequency, and focus depend on the needs and size of the group. A flexible approach and willingness to collaborate with others aided in the formation and continued success of a librarian-supported Writers Club.

Monday, May 18, 3:00 PM – 4:25 PM
Room: Austin Convention Center, Level Four, Room 19B

Public Services Section

Keep Libraries Weird: Inviting Everyone to the Party

Tackling the Big Data Issue: Library-Based Bioinformatics Computing Services Power Analysis of the Next-Generation Sequencing Data

Meng Li

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Yibu Chen

Bioinformatics Coordinator, University of Southern California, Los Angeles, California

William A. Clintworth

Associate Dean, Health Sciences Libraries & Director, Norris Medical Library, University of Southern California, Los Angeles, California

Objectives: The library has provided bioinformatics services since 2005. Recently, we have seen a rapidly growing demand for extreme computing resources to analyze high-throughput biomedical data. To further enhance the bioinformatics services, the two bioinformatics specialists (one with a PhD and one with dual master's degrees) have spearheaded an effort to address this big-data driven bioinformatics need of university researchers.

Methods: Since 2012, next-generation sequencing (NGS) technology has become the de facto platform that generates high-throughput genomic data in biomedical research. Biomedical researchers have been struggling with the analysis of NGS data due to the lack of computing resources that are powerful enough to handle the data being produced. We established two computing resources for researchers with different NGS data analysis needs. Four high-end workstation computers were purchased and hosted in the library. In collaboration with the university's Center for High-Performance Computing (HPC), five servers were acquired and configured into a custom condo. The bioinformatics specialists implemented and tested NGS analysis software tools for the workstations and the HPC servers. We initiated collaborations with the university's sequencing core facilities (data generation facility) and developed hands-on workshops to promote the service. We offered in-person consultations to assist users with their projects.

Results: The library-provided computing resources have been heavily used by university researchers for NGS analyses since their implementation. In 2014, more than 260 projects with over 10,000 data files (close to 10TB) have been processed, totaling more than 13,000 computing hours.

Conclusions: Just as it does for traditional information resources, a library is the ideal campus unit to provide widespread access to powerful bioinformatics computing resources that would otherwise be cost-prohibitive to individual researchers. When access is enhanced with comprehensive consultation and data analysis services, the library can become the campus focal point for NGS data analysis within the university research community.

The New Normal? PhD Scientists in Libraries

C. Tobin Magle

Biomedical Sciences Research Support Specialist, University of Colorado Anschutz Medical Campus, Aurora, Colorado

Many academic health sciences libraries support not only clinicians but also basic science researchers. The cultures and information needs of these two populations are distinct, and understanding and meeting the needs of basic science researchers require a specialized skillset. In recent years, many health sciences libraries have chosen to add PhD scientists to their team to bridge this gap. These “informationists” act as liaisons that can “speak the language” of science and provide relevant subject matter expertise. Thus, the Health Science Library at the University of Colorado Anschutz Medical Campus decided to hire a Biomedical Sciences Research Support Specialist (BSRSS), a PhD scientist tasked with facilitating a stronger relationship between researchers and the library. This paper will discuss the strategies employed and the programs implemented by the BSRSS to facilitate this process, including bioinformatics, data management, and scientific communications support, as well as items to add to the libraries collection that will aid researchers on campus. This type of role in the library will help transition medical libraries to a stage where they can act as stewards of not only medical literature, but all types of biological information.

What Exactly Are You, Anyway?: A Field Report from a Scientist Turned Medical Librarian and Research Communications Specialist

Jackie Wirz

Director, Professional Development Center | Research Data Specialist, Oregon Health & Science University, Portland, Oregon

Objectives: What happens when you place a newly-minted PhD into a medical library?

Methods: Our institution jumped at this opportunity and hired their first Biomedical Research Specialist four years ago. Her experience has covered the highs and lows of learning to translate between basic science culture and library norms as she developed her job; as a result, many new programs and initiatives have been developed. In addition to the expected work on research data management and eScience within the curricula, through consultations, and University committee work, the Biomedical Research Specialist has carved a unique niche as a research communications expert. From chairing a university-wide research week to implementing changes in graduate studies policy enhance training in research communication, the role of the Biomedical Research Specialist has led to a new branch of library services.

The View from Here: Gerald (Jerry) Perry, AHIP

Gerald (Jerry) Perry, AHIP

Director, University of Colorado Anschutz Medical Campus, Aurora, Colorado

Mr. Perry will discuss the need for scientists on the library staff and the results to hiring a scientist.

The View from Here: Kristi Holmes

Kristi L. Holmes

Director, Galter Health Sciences Library and Associate Professor, Preventive Medicine, Health and Biomedical Informatics Division, Northwestern University Feinberg School of Medicine, Chicago, Illinois

Dr. Holmes will discuss what it's like to graduate from being the scientist in the library to being the Library Director.

Tuesday, May 19, 3:00 PM – 4:25 PM
Room: Austin Convention Center, Level Four, Room 18A

Consumer and Patient Health Information Section

Ethnicity/Culture and Consumer Health

Using Health Literacy and Learning Styles to Improve Patient Understanding of Genetics and Personalized Medicine

Sheila Kusnoor

Associate Director for Research, Vanderbilt University Medical Center, Nashville, Tennessee

Katy Justiss

Evidence Librarian, Vanderbilt University Medical Center, Nashville, Tennessee

Melissa Stamm

Health Information Systems Project Manager II, Vanderbilt University Medical Center, Nashville, Tennessee

Helen Naylor

Information Scientist, Vanderbilt University Medical Center, Nashville, Tennessee

Batia Karabel

Health Knowledge Information Specialist, Vanderbilt University Medical Center, Nashville, Tennessee

Patricia Lee

Assistant Director, Vanderbilt University Medical Center, Nashville, Tennessee

Taneya Y. Koonce

Deputy Director, Vanderbilt University Medical Center, Nashville, Tennessee

Mia A. Levy

Ingram Assistant Professor of Cancer Research, Assistant Professor of Biomedical Informatics, Assistant Professor of Medicine, Division of Hematology and Oncology, Director Cancer Clinical Informatics, Vanderbilt University Medical Center, Nashville, Tennessee

Nunzia B. Giuse, FMLA

Assistant Vice Chancellor for Knowledge Management, Director of the Eskind Biomedical Library, Vanderbilt University Medical Center, Nashville, Tennessee

Objectives: With the increasing reliance on genetic-based medicine, patients need access to information they can understand. Using the freely-available online resource My Cancer Genome (MCG) as a testbed, we sought to create a reusable framework for delivering consumer-friendly information about genetics. Here, we discuss criteria and guidelines for developing consumer materials and lessons learned from focus group studies.

Methods: To guide the development of consumer-friendly information, we initially pooled suitability guidelines from online sources and the literature and constructed a gold standard matrix of components. We reviewed content on MCG to identify core genetic concepts that could not be easily translated through a simple English literacy effort, which we refer to as “knowledge pearls.” We developed an initial set of knowledge pearl videos using VideoScribe, a whiteboard animation tool from Sparkol. We chose to use videos as the delivery medium because they facilitate the use of multiple learning styles. A “basic” and “advanced” version of each pearl was created. The videos were presented to cancer patients and caregivers in a series of focus groups, and participants were asked to provide feedback and indicate their preferences for the different versions of the videos.

Results: Our team included librarians, information specialists, and representatives from MCG, who worked together to create the knowledge pearls. A list of 35 knowledge pearls was developed after reviewing the MCG content. The pearls were organized into 9 sets based on natural groups of 3-5 related pearls. Five focus group sessions, with a combined total of 30 participants, were held to review the first set of knowledge pearl videos. The participants generally displayed positive reactions to the videos and enjoyed the multimedia format. Many participants also indicated that they liked some aspects of both the basic and advanced videos and preferred combining elements of the two versions.

Conclusions: Based on the feedback from the focus groups, the pearls were revised to create one version for each pearl, targeted at the intermediate level. To guide the pearl development process, a style guide with recommendations for script development, image creation, narration recording, and visual presentation of the knowledge pearl videos, was developed based on a review of suitability criteria, comments from the focus group participants, and project group consensus. Our approach used to develop the knowledge pearls may be replicated by other librarians and information specialists seeking to improve genetic literacy.

Doodle Health: Using Gaming and Crowdsourcing to Develop Culturally Sensitive Pictographs

Erica Lake

Associate Librarian, University of Utah, Salt Lake City, Utah

Carrie Christensen

University of Utah, Salt Lake City, Utah

Jean P. Shipman, AHIP, FMLA

Director, and Director for Information Transfer, Center for Medical Innovation, University of Utah, Salt Lake City, Utah

Objectives: Developing health pictographs that are informative, accurate, and culturally sensitive is challenging. Engaging different cultural groups in the production of the education materials intended for their use increases the likelihood that the information will be relevant to them. An interdisciplinary

research team developed the game Doodle Health with the objective to build upon a free, online picture library that supports patient-centered and culturally sensitive health communication.

Methods: Crowdsourcing, participatory design, and gaming have been used successfully in other domains, but not in the creation of patient education materials. Focus group and “design box” brainstorming sessions for the Doodle Health game allowed the research team to address a diverse audience, with varying degrees of English proficiency and technological literacy. Testing the recognizability of pictures through an iterative design-test-redesign system is expensive and time-consuming, but crowdsourcing provides a way to engage a broad variety underrepresented or minority community perspectives in a way that is efficient in terms of time and resources. Doodle Health is an entertaining way for players to contribute new health-related pictures, propose improvements or alternatives to existing pictures, and participate in the recognizability testing of the pictures.

Results: The research team is currently in Year two of the research process. Year three will be devoted to promoting Doodle Health for general crowdsourcing use, collecting data, and evaluating the effectiveness of the pictographs. The collected data will be used to create and revise images in the pictograph library, analyze different interpretations/perceptions of health concepts and images, and look for links between demographics and comprehension scores in order to better serve underrepresented communities. The research team will also be conducting an evaluation with clinicians, using provider satisfaction and patient recall and comprehension as metrics.

A Curriculum to Reduce Health Disparities

Alexa Mayo, AHIP

Associate Director for Services, Health Sciences and Human Services Library, Baltimore, Maryland

M.J. Tooley, AHIP, FMLA

Associate Vice President, Academic Affairs/Executive Director, University of Maryland, Baltimore, Maryland

Objectives: This paper describes the new Project SHARE online curriculum, an NLM-funded health advocacy program aimed at building high school students' skills to reduce health disparities at the personal, family and community level. The curriculum aligns with national standards and can be used in diverse settings nationwide: schools, libraries, community-based organizations, and community-academic partnerships.

Methods: In 2012, the Library received NLM funding to develop Project SHARE (Student Health Advocates Redefining Empowerment). In 2012 and 2013, the team delivered 154 hours of instruction to selected high school students. In 2014, the SHARE team gathered best practices from two years of instruction, standardized lesson plans, and organized lesson content. The curriculum comprises six modules: Overview of Health Disparities; Quality Health Information; Taking Charge of Your Health; Smart Food Choices; Promoting Health and Wellness in Your Community; Crafting and Delivering the Message. Each module contains up to five lessons, accompanied by experiential learning activities. In this presentation, the Cultural Competence lesson is illustrated. Project SHARE curriculum aligns with national standards such as Healthy People 2020 and National Health Education Standards and was developed with a health professions magnet high school.

Results and Conclusions: The Project SHARE curriculum has about 4500 page views, with 180

downloads of the curriculum in its entirety. Understanding how the curriculum is being applied in the field is an ongoing process. The SHARE team has a sustainability plan to ensure that the curriculum is current and relevant to the needs of communities.

Health Care Information for Seniors: Integrating Health Literacy and Technology Instruction for Seniors in High Health Disparate Areas

Christy C. Kent

Information Services & Outreach Librarian, University of South Alabama Biomedical Library, Mobile, Alabama

Objectives: This paper examines the integration of instruction of quality health information resources on the Internet into existing senior citizen education programs located in identified, high health disparity zip codes, focusing on efforts to foster access to health information, while eliminating barriers to healthcare information for underserved seniors.

Methods: The Healthcare Information for Seniors (HCIS) project was funded through a subcontract with the National Library of Medicine. The library formed partnerships with area Senior Activities for Independent Living (SAIL) centers and local churches with Health Ministry Teams to target underserved seniors in zip codes with the highest health disparities. Using demonstration and one-on-one training, the seniors at the target locations are introduced to quality healthcare information in three separate instruction sessions. Seniors use iPads to explore the mobile versions of MedlinePlus, SeniorHealth, and other National Library of Medicine and National Institutes of Health resources and also create updatable electronic personal health records. Training educates seniors on selecting reputable, health-related web sites, introduces the benefits of improving technology skills, and emphasizes the importance of taking an active role in personal healthcare related decisions.

Results: While this project is still in its final phase, so far it has reached roughly 900 seniors located in high health disparity zip codes in the Mobile, Alabama area.

Conclusions: Success of this project will be based on pre and post assessments, which should indicate the senior user's confidence and willingness to use reputable sources like SeniorHealth and MedlinePlus for their future health information needs. Also, success of the project will be based on the overall number of seniors reached and community contacts and partnerships formed, to keep this health literacy initiative going at the expiration of the grant. Early reports seem to indicate that seniors feel more confident using MedlinePlus and SeniorHealth after instruction sessions and that seniors are more inclined to use these reliable resources in the future. This project has been funded in whole or in part with Federal funds from the Department of Health and Human Services, National Institutes of Health, National Library of Medicine, under Contract No. HHSN-276-2011-00004-C, with the University of South Alabama.

Tuesday, May 19, 3:00 PM – 4:25 PM
Room: Austin Convention Center, Level Four, Room 18B

Corporate Information Services Section

Cost, Quality, and Access: Librarians Engaged in the Business of Health Care

We Are from the Government and We Are Here to Help You: How Federal Medical Libraries Support Their Agencies' Missions and Improve Care

Mary Virginia Taylor

Library Director, Overton Brooks VA Medical Center, Shreveport, Louisiana

Priscilla L. Stephenson, AHIP

Chief, Library Service, Philadelphia VA Medical Center, Philadelphia, Pennsylvania

Edward J. Poletti, AHIP

Chief, Learning Resources, Central Arkansas Veterans Healthcare System-Little Rock, Little Rock, Arkansas

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

Methods: This study is based on earlier studies of hospital library value, including a federal library study conducted in 2010-2011. The project provided an opportunity for those who received research assistance from federal health sciences libraries to evaluate the impact of that information with regard to their work. Medical libraries from 4 federal agencies and a combined virtual library service provided an online survey to library customers receiving reference assistance during a 3-month study period, July through September 2014. The combined population of 1,598 clinical patient care providers, researchers, and health administrators represented 76 facilities. The survey tool was designed to capture immediate evaluations of the value of material provided in response to the requestors' specific reference questions. Results were reported in the aggregate as well as by agency and facility.

Results: Information requests supported patient care (29.29%), research (36.93%), education (23.67%), and administrative work (10.10%).

98.86% of respondents indicated they received new or updated information from their library

requests.

Of the requests for patient care information, 56.13% said the information improved patient management, 47.10% said the information received could result in reduced costs for either the hospital or the patient, and 17.85% believed the library's research helped avoid adverse events or complications, including avoiding patient mortality (7.31%).

Conclusions: Medical libraries provide value to federal agencies in terms of improved patient care, avoided or reduced costs, saved staff time, and support for funding applications.

Reference support provided by federal health science libraries was judged to be pertinent to the respondents' specific requests, answered their questions, and provided new or updated information.

Results of this study compare favorably with previous health science library studies and provide ample evidence to support the impact and value of health science libraries in federal agencies.

Librarians Engaged in Integrating Evidence into Clinical Practice

Emily Brennan

Research Informationist, Medical University of South Carolina, Charleston, South Carolina

Elizabeth A. Crabtree

Director of Evidence-Based Practice; Assistant Professor, Medical University of South Carolina (MUSC), Charleston, South Carolina

Amanda Davis

Clinical Evidence-Based Practice Analyst, Medical University of South Carolina (MUSC) Hospital, Charleston, South Carolina

Objectives: The librarian holds an invaluable role within the Center for Evidence-Based Practice (EBP), and is engaged in performing literature reviews for clinical pathways and order sets for the Electronic Health Record (EHR), as well as EBP instruction to interprofessional groups of clinicians.

Methods: The Center for Evidence-Based Practice (EBP), which includes a librarian on its team, is housed jointly between the Library and the hospital's Quality Management department. The Center aims to promote scientific inquiry, evidence-based practice, and quality outcomes. These goals are accomplished through the development of EBP clinical decision support tools such as clinical pathways and order sets for the Electronic Health Record (EHR), EBP education for interprofessional groups of clinicians, and outcomes research. The medical librarian uses her unique expertise in framing answerable clinical questions, conducting comprehensive literature searches, and managing search results to ensure that the best research evidence is integrated into clinical practice.

Results: My results are not complete yet. If selected, I will come back into the system and enter my results after December, 2014.

Conclusions: My results are not complete yet. If selected, I will come back into the system and enter my results after December, 2014.

The Role of the Librarian in Achieving Compliance for Meaningful Use Stage 2 Core Measure 5

Deborah Breen

Senior Director, EBSCO Health, Ipswich, Massachusetts

Beverly Murphy, AHIP

Assistant Director, Communications and Web Content Management; Hospital Nursing Liaison, Duke University, Durham, North Carolina

Persko (PJ) L. Grier

Outreach and Access Coordinator, National Network of Libraries of Medicine, Southeastern/Atlantic Region, Baltimore, Maryland

Donna B. Flake, AHIP

Director, SEAHEC Medical Library, Wilmington, North Carolina

Objectives: Stage 2 Meaningful Use Core Measure 5 requires that clinicians have contextual access to diagnostic and therapeutic clinical reference information via the HL7 Infobutton from within the EHR System. This paper describes the involvement and experiences of librarians related to meeting Core Measure 5 and the challenges, successes and lessons learned.

Methods: Clinical workflow, access to EHR systems, and resources vary between academic medical centers and community hospitals. Librarians are the subject matter experts in purchasing and using clinical reference information and have a critical role to play when it comes to ensuring compliance with Core Measure 5. However, a recent informal survey showed that librarians do not have user access to their institutions' EHR systems and some didn't see why that would be necessary. Involvement includes testing the vendor delivered EHR Infobutton technology for the user experience, supporting the selection of e-resource decision support tools, and understanding the components and possible limitations of a contextual retrieval, all which could directly affect patient treatment and care. This paper will highlight the experiences of librarians from academic medical centers and community hospital systems.

Results: My results are not complete yet. If selected, I will come back into the system and enter my results after December, 2014

Conclusions: My results are not complete yet. If selected, I will come back into the system and enter my results after December, 2014

A Lean Application in Documenting Patient Education for Meaningful Use

Jean P. Shipman, AHIP, FMLA

Director, and Director for Information Transfer, Center for Medical Innovation, University of Utah, Salt Lake City, Utah

Erica Lake

Associate Librarian, University of Utah, Salt Lake City, Utah

Jessi Van Der Volgen, AHIP

Trainer/Curriculum and Content Specialist, University of Utah, Salt Lake City, Utah

Objectives: Patient education is crucial in ensuring patient satisfaction, quality care outcomes, and Meaningful Use (MU) reimbursement. There is currently a variety of ways to provide patient education but not all can be audited to demonstrate compliance with MU requirements. Reducing the variables in patient education documentation decreases the risk of being penalized for not meeting MU requirements.

Methods: Our team represented areas of expertise required by the project topic, including individuals from the clinical education staff, information technology, and the health sciences library. The team received training in the principles and strategies of Lean, and immediately began applying this training to the project to identify system inefficiencies. Team members performed a Gemba walk, observing 38 patient/provider interactions in two outpatient clinics. A standard survey form and protocol was developed to collect consistent data regarding how providers accessed, delivered, and documented patient education. Providers were told we were observing the functionality of the electronic health record to minimize the impact on their regular patient education behavior.

Results: Though nearly all providers were supplying patient education, they were not doing it in ways that could be audited to show MU compliance. Analysis of collected data revealed four key points:

- there was variable provider awareness of the MU patient education requirements;
- there was an inconsistent processes for accessing and documenting patient education;
- there were sizable content gaps in the patient education resource, and differing provider preferences for reference material;
- and there were technical difficulties searching for, and accessing, patient education information as embedded in the electronic health record.

Conclusions: The skills and knowledge level of the electronic health record user contributes to the variability of patient education workflow processes. By implementing changes to improve the process and reduce variability, a positive financial impact can be made through cost avoidance, revenue generation, and MU compliance. Since adoption of MU Stage 2 standards have been delayed, the team's recommended changes have yet to be evidenced.

Tuesday, May 19, 3:00 PM – 4:25 PM
Room: Austin Convention Center, Level Four, Ballroom E

Health Association Libraries Section

Librarians, Evidence, and Systematic Reviews: Limitless Possibilities

Survey of Systematic Review Authors to Determine Rates of Librarian Involvement, Roles, and Benefits/Barriers to Collaboration

Jonathan Koffel

Clinical Information Librarian, University of Minnesota, Minneapolis, Minnesota

Objectives: To develop a more accurate estimate of librarian involvement in systematic reviews and the roles that they play. In addition, to determine why systematic review authors choose to partner with librarians, the barriers and incentives to such collaboration, and author/article variables that can predict librarian involvement. This information can help guide libraries implementing systematic review services and support.

Methods: As part of a larger study, 1560 systematic review authors from 2012-2014 were asked about librarian or search specialist involvement in their most recent review and the role that the librarian played. Authors also stated why they did or did not partner with a librarian, the benefits and barriers to partnership and how librarians can better support authors and market their services. Rates and responses to each of these items were summarized with descriptive statistics. In addition, a multivariate logistic regression was used to examine whether demographic variables such as impact factor, experience, and training in systematic review methodology could predict librarian involvement and specific roles.

Efficiently Searching for Systematic Reviews: How to Perform High-Quality Searches More Efficiently

Wichor M. Bramer

Biomedical Information Specialist, Erasmus MC, University Medical Center Rotterdam, Rotterdam, Netherlands

Gerdien B. de Jonge

Biomedical Information Specialist, Erasmus MC, University Medical Center Rotterdam, Rotterdam, Netherlands

Frans Mast

Librarian, Erasmus MC, University Medical Center Rotterdam, Rotterdam, Netherlands

Objectives: Searching for systematic reviews (SRs), when no relevant articles may be missed, is often very time consuming. Selecting the correct search terms (balancing sensitivity and specificity) and translating queries between databases is challenging. At Erasmus MC a systematic method has been developed for creating optimal search strategies and easy translation into multiple database queries. How efficient is this method and what is the quality of the results?

Methods: The used method has two focus points: creating an optimal search in the first database, and translating that query to other databases. Term completeness is reached by an optimization technique. This method compares the results retrieved by thesaurus terms with those retrieved by the free text search words to discover missed relevant terms, and vice versa to check on missed thesaurus terms. Macros in MS Word have been developed to convert syntaxes automatically between databases and interfaces. Since two years the search process and results of W.M. Bramer have been documented. The included references of finished reviews were obtained from the review authors, and overall sensitivity and specificity of the searches were checked. By comparing these parameters with those of a set of published SRs from other Dutch university medical centers the quality of the searches has been assessed.

Results: With the experience of several hundreds of searches in the last four years, Bramer completed 90% of the monitored searches within two hours. The search strategies contained a slightly higher number of synonyms and were performed in more databases than those in the comparison set. Fifty percent more hits were retrieved, but the precision was higher because the number of included references was twice as high as in the comparison.

Conclusions: The method allows good quality searches to be developed fast, therefore many customers can be helped. The methodological quality of the search strategy and the yield of the search results seem to outperform those published by similar institutes, although true comparison is difficult because of different subjects, and differences in data collections methods (publication vs registration). Success factors in the process are the optimization techniques for term completeness, the macros for database translation, the access to high quality bibliographic databases and the order using these, the use of single line strategies and the immediate decision of the researcher on the relevance of the proposed search terms.

Beyond the Search: Librarian Involvement on the Systematic Review Team

Carrie Price

Clinical Informationist, Johns Hopkins University, School of Medicine, Baltimore, Maryland

Victoria G. Riese, AHIP

Clinical Informationist, Johns Hopkins University, Baltimore, Maryland

Katie Lobner

Clinical Informationist, Johns Hopkins University, Baltimore, Maryland

Jaime Friel Blanck, AHIP

Clinical Informationist, Johns Hopkins University, School of Medicine, Baltimore, Maryland

Blair Anton, AHIP

Associate Director-Clinical Informationist Services, Johns Hopkins University, School of Medicine, Baltimore, Maryland

Objectives: Informationists at the Welch Medical Library are increasingly being asked to participate on systematic review teams in roles beyond the search process. This paper will discuss challenges associated with being a team member and how to continue to provide outstanding service on a significant and time-consuming project.

Methods: With the interest in evidence based literature, researchers and clinicians are looking to the systematic review process to help answer questions. Informationists at this library are regularly part of these systematic review teams from the start. We will discuss the importance of the initial consult, good note taking and note keeping, documentation of methodology, including inclusion and exclusion criteria, explaining systematic review guidelines and data abstraction, setting expectations for the team, and maintaining good communication among all team members. We will also talk about the pitfalls of the process; for example, what happens when a project stalls? When the team loses and then gains new members? When deadlines are missed? Finally, we address the question of time management and how to keep a large project going while still providing other services to other patrons.

Results: Informationists regularly employ their expertise to guide the duties of a systematic review team. Informationists lend background to the project from the start by completing a preliminary search to ensure the research is innovative and worthwhile. The involvement of an informationist can keep the project moving forward even when team members rotate off because of other duties. In addition to assistance with the systematic literature search and citation management, members of the systematic review team are able to consult with the informationist who can offer a neutral opinion regarding rationale, inclusion and exclusion criteria, data abstraction, risk of bias, and more.

Conclusions: Researchers and clinicians at our institution reap benefits when they involve an informationist as a member of the systematic review team at the beginning of the project. Librarian and information specialist participation in systematic reviews is correlated with higher quality reported search strategies and better ongoing documentation (Rethlefsen et al., 2015). Informationists know the importance of good documentation and reproducibility in the context of systematic searching. Informationists involved on the systematic review team offer high value service through communication, documentation, and management skills for the duration of a systematic review process.

Reference: [Rethlefsen, M. L., et al. \(2015\)](#). Librarian co-authors correlated with higher quality reported search strategies in general internal medicine systematic reviews. *Journal of Clinical Epidemiology*.

Number Needed to Read: What Is the Value of Searching Different Databases in Systematic Reviews?

Amanda Ross-White, AHIP

Health Sciences Librarian, Nursing, Queen's University, Kingston, Ontario, Canada

Christina M. Godfrey

Assistant Professor, Queen, Kingston, Ontario, Canada

Objectives: When conducting systematic reviews, not all databases provide equal content, yet often organizations like Cochrane and Joanna Briggs require searches of databases or web search engines like Google that either retrieve few unique results, or few results of sufficient quality. Which databases provide the greatest amount of unique content that meets the inclusion criteria of a systematic review?

Methods: Searching several databases and web search engines for articles used in a systematic review can take considerable time, and if the articles are better found elsewhere or of poor quality, then this time can be wasted. Taking several systematic reviews on a variety of research topics, done for the Cochrane Collaboration (1), Joanna Briggs (4) and published independently (3), the authors tracked backwards from the included articles to determine which databases were most likely to retrieve articles of high enough quality that they were included in the reviews, and which ones did not provide sufficient value to justify the time spent searching and retrieving the articles.

Results: Pubmed / Medline, CINAHL and GlobalHealth all contained examples of included articles that were not found elsewhere. Hand searching also contributed unique articles that were not found with databases searched. The vast majority of articles were found in multiple databases (an average of 3.025).

Conclusions: In a PRISMA flow chart, duplicates are often discarded so the abstract is only considered once. The high amount of duplication in included studies suggests that instead of discarding these citations prior to considering abstracts, instead particular attention should be paid as to whether these articles should be included. Systematic review authors need to be judicious in their selection of databases to be searched.

Tuesday, May 19, 3:00 PM – 4:25 PM
Room: Austin Convention Center, Level Four, Room 18C

Medical Library Education Section

New Voices

Why Not Librarians?: What Librarians Can Learn from Campus Disability Counselors' Use of Health Information Sources

Rachel D. Williams

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Catherine Arnott Smith

Associate Professor, University of Wisconsin-Madison, Madison, Wisconsin

Objectives: How can academic and medical librarians work effectively with campus disability centers to provide students better access to health resources? This study examines this problem by considering: which resources disability accommodations staff rely on when looking for health information, factors they use to determine credibility of health resources, and the role of librarians and how librarians can respond.

Methods: While several studies have examined the information source use of many different kinds of professionals, little research has considered the perspective of disability accommodations counselors who facilitate academic accommodations for a growing number of university students. This qualitative study involved interviewing seventeen disability services staff at two campus disability centers in the Midwest. Participants were interviewed regarding their health information behaviors with a specific focus on which sources they use and how they determine whether those sources are credible. Interviews were transcribed and then coded in NVivo. Coded transcripts were analyzed to identify which types of health information sources these staff use, what their criteria for use include, and whether they consult librarians for assistance in finding health information. Results are used to make recommendations for librarians to collaborate with disability service centers in providing services and resources to students.

Results: Disability workers primarily rely on the internet, colleagues, and print materials to look for health information that helps facilitate disability accommodations for university students. However, these professionals do not consult librarians for assistance in finding health information sources. Disability services professionals view health professionals and colleagues as experts to consult when looking for health information. This lack of consultation reveals an important potential partnership between campus librarians and disability services staff. The reputation of the author, recommendations from colleagues, and comparison of content were identified as the foremost ways for determining credibility of health information sources.

Conclusions: Although most respondents did not ask librarians for help finding health information, many wondered, 'why not?'. This indicates an opportunity for librarians to work with disability

services centers to increase awareness of collections and services. It is a partnership that should be pursued and may in the long-term help campus librarians maintain relevance. This collaboration will be useful for providing assistance in locating health information and increasing students' awareness of the services available in the library. This study provides insight into how disability professionals use information sources and determine their credibility in order to assist students with their accommodations needs.

In the Trenches: Public Libraries, Health Information, and the Affordable Care Act

Kris Glodoski Wolf

Librarian, Madison Area Technical College, Madison, Wisconsin

Catherine Arnott Smith

Associate Professor, University of Wisconsin-Madison, Madison, Wisconsin

Objective: Research question 1: What role did public libraries in Wisconsin play in disseminating information about the Patient Protection and Affordable Care Act (ACA); how did they train staff to provide resources as well as plan and publicize ACA-related events? Research question 2: How did individual library perceptions around the ACA enrollment audience influence community collaboration?

Method: To collect data for the study, one-on-one interviews were conducted with librarians and library staff in eight public libraries in Wisconsin; populations of the communities represented ranged from 2,400 to 243,000. Interview sessions included fifteen questions regarding dissemination of consumer health information, with a particular focus on public library involvement in the initial ACA enrollment period. Interviews were recorded and transcribed.

Results: Interview themes indicate a general lack of confidence providing ACA resources in public libraries. This lack of confidence presents itself in multiple ways, including how ACA information is offered to the public (e.g. print handouts, enrollment sessions with community-facilitated ACA navigators, or web-based outreach) and how public library staff is prepared to handle complications associated with the new Healthcare Marketplace – everything from a patron's computer literacy to the functionality of the government-mandated website, or online enrollment center.

Conclusions: The anxiety expressed by library workers about providing accurate and adequate ACA resources, as well as the uncertain degree of community awareness around community-organized ACA enrollment sessions, informs both a research and a practice agenda. How do we address future challenges of providing support to patrons during ACA enrollment periods?

Presenters will summarize their proposed ideas to support public libraries embarking on future community health-oriented collaborations, including:

- 1) analysis of ACA and consumer health training provided for library staff;
- 2) better dissemination of available ACA-related resources; and
- 3) evaluation of successful community partnerships (connections, interactions, and integrations with outside entities).

Controlling the HISB Paradox: Using the iGENIS Intervention with a Modified Comprehensive Model of Information Seeking to Study Potential Increases in Health Information Literacy Skills

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Roxanna Palmer

Senior Graduate Assistant, University of South Florida, Tampa, Florida

Brian A Hutchison

Graduate Student, University of South Florida, Tampa, Florida

Objective: Research indicates women who test positive for BRCA genes and those with cancer do not seek additional information beyond that provided by caregivers, even though there is information that might increase positive outcomes. By modifying the CMIS and introducing iGENIS, is it possible to increase the health information literacy and self-efficacy of affected women to produce better health outcomes?

Methodology: We designed a mixed-methodology to test a modified CMIS that uses the Interpersonal Genetic Information Seeking-Skills (iGENIS) tool to measure participant use with three communication methods: live chat, e-mail, and direction to a cancer advocacy organization's website. Recruitment will be 48 participants from cancer advocacy groups and 24 each from the ABOUT and the ABOARD cancer studies, then divided into cancer salience quartiles. All participants will be given a pre-test to determine BRCA cancer knowledge and evenly distributed into control and test groups based on demographics and their pre-test scores. Participants will be randomly assigned a communication method, utilize the iGENIS tool for six months, and use online journaling to reflect on the process. The BRCA knowledge test will be given monthly. Card sorting and assessment of journaling will determine themes and codes for validation.

Results: Our research found that the use of longitudinal mixed method research designs have been optimal in past studies involving dynamic and situational factors that may involve irrational and non-linear information-related behaviors influenced by emotions or coping strategies.

Conclusion

We found using a mixed method research design is the optimal approach to investigate both comprehension and participant driven narratives. Time is an important factor within this methodology in addressing participant antecedents and the effect that this may have on the HISB paradox. This methodology is best suited to investigate the themes and patterns within the decision not to seek information by understanding that antecedent factors are fluid and situational, varying within and among individuals and across time.

Getting the Word out: An Examination of Health Sciences Libraries' Social Media Presence

Michelle B. Bass

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Chase Masters

Enabling Technologies Informationist, University of Michigan, Ann Arbor, Michigan

Mark Chaffee**Anne Perorazio**

Information Resources Reference Specialist, Taubman Health Sciences Library, Ann Arbor, Michigan

This paper investigates the use of social media platforms in academic health sciences libraries. Our objectives are two fold:

1. Critically examine the use of social media as an extension of an institution and as a tool for outreach to patron communities to validate the time and effort necessary to appropriately use respective social media platforms.
2. Prove the value of refining and maintaining social media presence in health sciences libraries and predict future trends amongst peer institutions.

A comprehensive literature review of peer-reviewed publications in databases and library journals (e.g. Journal of the Medical Library Association, Medical Reference Services Quarterly) on previous analysis of social media use in health sciences libraries serving academic and clinical communities was the first step of our research process.

We then collected information about social media platform use for each member of the Association of Academic Health Sciences Libraries (AAHSL). All social media platforms were analyzed, including Facebook, Twitter, Instagram, Pinterest, YouTube, Blogs, etc. A six month period of time for data collection was determined based on the commencement of medical school and residency programs that typically occur in the summer months. Analysis included a review of social media platform utilization and the type of content delivered in each platform. To ensure inter-rater reliability, each researcher reviewed a set of AAHSL members' social media platform use and their results were then checked by another research group member; if there was disagreement; discussions between researchers ensued.

We will share our findings and extrapolate patterns of use by social media platform. A suggestion of best practices for social media platform use in academic health sciences libraries will conclude our discussion.

Beyond Linguistic Limits: Putting Health Information in the “Hands” of the Deaf

Alice J. Jagers

Graduate Student, University of North Texas, Coppel, Texas

Megan M. Bell

Graduate Student, Louisiana State University, Baton Rouge, Louisiana

Objective: Our objective was to complete a comprehensive literature search to identify ways librarians can increase the health literacy of Deaf consumers.

Methods: Researchers conducted a comprehensive literature search using high recall and high precision strategies in health (e.g. Medline & CINAHL), social science (e.g. PsycARTICLES & ERIC), information science (e.g. Library & Information Science) and citation index (e.g. Web of Science) databases. They also studied a range of books on Deaf culture and ethnicity. In addition, researchers searched the World Wide Web for grey literature. Predetermined inclusion/exclusion criteria were used to select relevant articles. They limited their survey to literature from the United States.

Results: The researchers found 20 studies about health disparities experienced by the Deaf as well as health information outreach to the Deaf. The literature review revealed that the Deaf community shares similarities with other ethnic and linguistic minorities. In addition, the Deaf community faces communication barriers which contribute to its low health literacy. Studies showed that people in the Deaf community accessed health information online; however, they comprehended and retained information better when online resources used visuals, captions and American Sign Language (ASL). Researchers found no literature describing previous librarian involvement to increase health literacy of Deaf people.

Conclusion: Librarians can increase the health literacy of the Deaf community in three ways. One, librarians can create a website of reliable health information. The online resource should include ASL videos, low English literacy health handouts, health information comics and links to other resources. Two, librarians can raise awareness of these resources and increase health information literacy by collaborating with leaders within the Deaf community. And three, librarians can collaborate with public health nurses, low English proficiency (LEP) researchers, health literacy researchers and other interested parties to create Deaf-friendly resources.

Tuesday, May 19, 3:00 PM – 4:25 PM
Room: Austin Convention Center, Level Four, Room 18D

Pharmacy and Drug Information Section

Seamless Intertwining of Electronic and Physical Library Resources

The Role of Discovery in Finding the Print (Be It Print or Digital)

Harold Bright

Electronic Resources Librarian, A.T. Still University of Health Sciences, Mesa, Arizona

The transition to Digital from Print is nearly complete in the Health Sciences. Over 90% of collection budgets are spent on digital resources. Ninety-nine percent of new print resources can be acquired digitally. This presentation will explain how one university uses the discovery system to find the right resources whether digital or print, the thought process behind those decisions, and look at other examples of innovative approaches to print/digital exploration.

If You Build It, They Don't Always Come: Taking the Hospital Library to the Hospital

Maureen Humphrey-Shelton, AHIP

Medical Librarian, Robley Rex VA Medical Center, Louisville, Kentucky

In the fast-paced and ever-shrinking environment of hospital libraries, intertwining electronic and print resources is a constant juggling act. Balancing the hospital's need for square footage, with the patient's need for health education, with the staff's need for resources in the format they prefer, when they prefer it isn't easily done. Learn what has worked and what hasn't worked in a busy hospital library.

You Can't Always Get What You Want (Electronically)...But You Can Get What You Need (in Print)

Amy J. Chatfield

Information Services Librarian, University of Southern California, Los Angeles, California

Health sciences students prefer using electronic materials instead of print materials. But not every needed piece of information to support education is available in electronic form. This is especially

true in basic sciences and drug information, where foundational information is unlikely to be republished in digital formats. Learn how one library promotes use of print resources at the point of need using web products like Libguides and Blackboard CMS.

Making the Invisible Visible: Marketing Library Resources after a Natural Disaster

Karen Yacobucci

Content Management Librarian, New York University Langone Medical Center, New York, New York

This presentation will discuss a variety of outreach activities that were used after a library lost their collection due to a natural disaster. These activities have proven to be successful in promoting library services and both electronic and print resources to students and faculty.

Tuesday, May 19, 3:00 PM – 4:25 PM
Room: Austin Convention Center, Level Four, Ballroom F

Public Services Section

Libraries, Adult Learners, and SOTL, Oh My!

Modernization through Modules

Jessi Van Der Volgen, AHIP

Trainer/Curriculum and Content Specialist, University of Utah, Salt Lake City, Utah

Rebecca Brown

Trainer/Curriculum & Content Specialist, University of Utah, Salt Lake City, Utah

Sharon Dennis

Assistant Director, University of Utah, Salt Lake City, Utah

Objectives: To modernize a traditional face-to-face class to an online, asynchronous, modular format and assess the success of the new model for adult learners.

Methods: Based on feedback from previous classes and adult learning principles, a new model for teaching a set of databases to librarians and other professionals was piloted and assessed. Independent online modules were developed and consisted of a self-paced or video tutorial, discovery exercises, and pre- and post-tests. The modules were offered within a single, asynchronous class that was open for four weeks. Participants could take any or all of the modules in the order of their choosing. Continuing education credit was awarded based on number of modules completed. Course success will be evaluated through course participation and completion rates, knowledge gained (as assessed through pre- and post-tests), and course satisfaction.

Results: Seventeen participants completed the 6 credit hour class in the two most recent in-person offerings. During the modular course, 41 participants completed at least one module. The modular course participants earned an average of 5.82 credits each (range 0.5 – 12.0). Overall, 102 credit hours were awarded for the in-person classes and 238.5 credit hours were awarded for the modular class. Based on pre- and post-test scores, participants in the modular class improved an average of 24%. All participants (100%) in the in-person classes gave the class an “A,” whereas 90% of the modular course participants rated the class as an “A.”

Conclusions: The online, modular class allowed us to reach more people and award more continuing education credits than the traditional, in-person class. Student ratings, comments, and knowledge gains for the modular class indicated overall satisfaction and success with the format. Many students indicated the desire for more time to complete the class even though credit was awarded based on completed modules. While some students may prefer an in-person class, the modular online format offers a strong alternative that can be offered nationwide without the need for

travel, and important consideration when resources are limited. The modular class will continue to be evaluated and modified to reflect feedback from students.

Don't Evaluate Like It's 1999: Developing and Using a New Instructional Assessment

Amy J. Chatfield

Information Services Librarian, University of Southern California, Los Angeles, California

Lynn Kysh

Information Services Librarian, University of Southern California, Los Angeles, California

Jin Wu

Emerging Technologies Librarian, University of Southern California, Los Angeles, California

Objectives: Librarians at an academic health sciences library provide ~80 class-integrated or stand-alone classes each year and attendees complete evaluation forms at the end of most sessions. Until recently, the library used an evaluation form created in the 1990's that addressed only user satisfaction. Results did not provide instructors with information needed to improve instructional content and delivery.

Methods: In November 2013 the evaluation form was redesigned into an assessment form that better guides librarians in meeting users' instructional needs. The new form is based on an examination of existing evaluation forms at the library and larger institution, principles of adult-learner-focused educational theories, and best practices of library instruction. Each assessment includes a standardized set of mandatory questions and allows for the addition of customized questions on class content. The information most desired by instructors was the most difficult to elicit: is content provided appropriate in scope, depth, and length? By using Likert scales and standardized question formats, the new assessment form allows for comparison of feedback from disparate classes, and provides instructors with feedback on their instructional styles. Qualtrics was chosen as the repository for assessment data and workflows were designed for using and reviewing the completed assessments.

Results: The new assessment form was well-received by librarians and was used in 60 classes from May 2014 through December 2014. Not all attendees complete the form, limiting utility. Data collected indicates positive and negative feedback: learning objectives are being met, instructors are perceived as effective teachers, yet specific instructors' delivery styles are not connecting with patrons, and content of non-curricular classes is too basic.

Conclusions: Creating and using a new instructional assessment has been valuable for the library as a whole and for individual instructors. The results have validated our perception that curricular and non-curricular instruction was meeting patron needs and helped individuals identify specific areas in which to improve their teaching. It has aided the library in identifying topics for future non-curricular classes and online learning tools. There are still some changes to be made to processes of creating and using the data from these forms: it is time-consuming for each instructor to add learning outcomes, it is difficult to motivate students to fill out surveys, and instructor-specific data is not used in annual librarian evaluations. Despite these minor problems, the assessment form provides relevant data for continually adapting and perfecting library instruction.

Scaling the Boundaries of Instructional Design: Forging Partnerships to Link Librarians with an Institutional Mission

Xan Goodman, AHIP

Health & Life Sciences Librarian, University of Nevada Las Vegas, UNLV, Henderson , Nevada

Objectives: This paper will describe how an academic health sciences librarian has scaled the boundaries of traditional instructional design to participate in backwards design of assignments for the purpose of including information literacy into the curriculum of undergraduate health sciences courses. A review of information literacy curriculum integration in a second year and two milestone undergraduate courses will be covered.

Methods: At the institutional level the University of Nevada, Las Vegas, organized meetings for disciplinary faculty to partner with their library liaison in a targeted way in order to review, discuss, and design assignments for second year seminar and milestone courses. The academic health sciences librarian met with disciplinary faculty from public health and kinesiology for the purpose of reviewing course syllabi, assignments, and to discuss where information literacy may be integrated into courses. The health sciences librarian partnered with faculty to integrate information literacy, to redesign assignments and to align assignment learning outcomes with the institutional learning outcomes. This paper will describe the process and outcomes of how an academic health sciences librarian partnered with disciplinary faculty to strategically redesign assignments and integrate information literacy into second year seminar and milestone courses for undergraduates.

Results: Institutional support for faculty librarian institutes and workshops include a Faculty Institute for Second Year Seminar (SYS) courses and a Milestone Course Workshop. In 2012-2013 the Health Sciences Librarian participated in a Faculty Institute for Second Year Seminars. She met with the course creator of Public Health 205. The outcome of this was approval of the course and an integrated library instruction session based on the university learning outcomes for undergraduate students and instructor learning outcomes. The librarian collected student work for Public Health 205 during 2013-2014. This work will be assessed during the summer of 2015. In 2013-2014 the Health and Life Sciences Librarian participated in a Milestone Course Workshop with two Public Health faculty members and a Kinesiology instructor. This resulted in the librarian involvement on assignment design and assignment materials, as well as library instruction sessions for the Kinesiology milestone course.

Conclusions: The librarian continues to work closely on the Kinesiology Milestone course and a revised version of a first year kinesiology course. She is also beginning the process to assess student work collected for the Public Health 205 second year seminar course

Health Sciences Librarians' Experience with Instructional Design

Michele Malloy

Research Services Coordinator, Georgetown University Medical Center, Washington, District of Columbia

Laurie Davidson

Associate Director Reference, Research and Education Services, Georgetown University Medical Center, Washington, District of Columbia

Objectives: Librarians' roles and opportunities providing educational services has increased in scope and complexity within academic medical centers, so our preparation and continued development as educators is essential. Librarians have varied backgrounds or expertise in instructional design; we rely on continuing education, mentors, and experiential learning. We assessed librarians' knowledge, skills, behaviors, and experiences with instructional design.

Methods: A survey, focusing on knowledge, skills, behaviors, and experiences with instructional design and educational theory and practice, was distributed to librarians involved in the Medical Library Association. Demographic data regarding the librarians' institution types, experience levels, and user groups was gathered. Survey questions included both quantitative and qualitative measures, allowing for analysis of case studies and perceptions provided by respondents. Quantitative data was statistically evaluated, while data from open ended questions was thematically analyzed to identify perceived needs and strengths. Follow-up interviews were conducted with willing respondents.

Results: My results are not complete yet. If selected, I will come back into the system and enter my results after December, 2014

Conclusions: My results are not complete yet. If selected, I will come back into the system and enter my results after December, 2014

Collaborating to Study Medical Students' Self-Directed Learning Strategies

Mary E. Edwards, AHIP

Distance and Liaison Librarian, University of Florida, Gainesville, Florida

Jennifer A. Lyon, AHIP

Biomedical & Translational Research Librarian, Stony Brook University, Stony Brook, New York

Casey White

Associate Professor and Associate Dean for Medical Education, Research and Instruction, University of Virginia School of Medicine, Charlottesville, Florida

Erik W. Black

Assistant Professor, University of Florida, Gainesville, Florida

Joseph Fantone, III.

Senior Associate Dean for Educational Affairs, University of Florida College of Medicine, Gainesville, Florida

Lou Ann Cooper

Director of Program Evaluation, University of Florida College of Medicine, Gainesville, Florida

Objectives: As medical schools are looking closely at undergraduate medical education, it is vital to understand students' study habits and approaches to learning, and how those change and develop over the four years of medical school. Two large state medical schools are in the midst of a study to investigate the self-directed learning strategies used by medical students.

Methods: Librarians partnered with faculty from both schools to implement a qualitative research project designed to explore medical students' study habits from undergraduate training through the four years of medical school. We are also interested in the degree to which they engage in self-assessment and self-directed learning. Both schools conducted individual interviews with approximately 50 students – 15 each from years one and two, and 10 each from years three and four. Interviews were conducted with an identical semi-structured protocol, to explore the topic without using leading terms. Data collection is nearing completion, analysis of transcripts has begun, and study completion scheduled for mid-winter 2015. Librarians collaborated with faculty on the study design and IRB submission. All team members will be significantly involved in thematic analysis of the data and eventual publication of the study.

Results: My results are not complete yet. If selected, I will come back into the system and enter my results after December, 2014

Conclusions: My results are not complete yet. If selected, I will come back into the system and enter my results after December, 2014

Tuesday, May 19, 3:00 PM – 4:25 PM
Room: Austin Convention Center, Level Four, Room 19A

Technical Services Section

Open Access and the Library Infrastructure

Open Access Roles for the Library

Anneliese S. Taylor

Assistant Director, Scholarly Communications and Collections, University of California, San Francisco, California

OA publishing has become an integral part of the academic sphere. Anneliese Taylor will speak about the medical library's relationship with open access publishing and funder mandates for public access to research results. She will address roles within the library and the importance of collaboration with institutional partners.

Replicability and Reproducibility of Research Using an Open Data Set

Bart Ragon

Associate Director, Knowledge Integration, Research, and Technology, University of Virginia, Charlottesville, Virginia

Objectives: Data from the Value of Library and Information Services in Patient Care Study (Marshall, 2013) was used to determine if additional insight could be gleaned from the data not asked by the original researchers. This paper will discuss the opportunities and challenges in reusing open data, share the results of the reuse experiment, and offer a perspective on the impact for medical librarians who support clinical and basic science researchers.

Methods: The large multisite study includes 56 library sites, 118 hospitals, and contains 16,122 respondents. In the study, clinicians were asked if they handled any aspect of the clinical situation differently based on information they obtained from an information resource. The original data was downloaded from the Odum Institute Dataverse Network and reused utilizing a 3 X 2 ANOVA in an experiment to determine if there was statistical evidence for value of information resource by role, age, and gender of the healthcare provider. Post hoc analysis utilizing the Scheffe method was also performed to identify homogeneous subgroups based on role. The criterion for error was established at $p < .0125$. When role was determined to be a significant factor, root-mean-square standardized effect (RMSSE) was calculated to analyze the differences in the group mean as compared to the grand mean.

Results: This study found that access to information resources does have a positive impact the course of clinical care. Effect size was trivial in all cases, indicating that the magnitude of differences

by role of the clinician was minimal.

Conclusions: Many in science now speak to the replicability and reproducibility of science using open datasets. Use of the Value of Library and Information Services in Patient Care Study did provide additional insight into patient care not originally researched by investigators. However, because data points in the Value Study were collapsed to protect participant privacy, the study is not replicable. Additional insight as an outside researcher was also limited by data excluded for privacy concerns. Access to open data will dramatically change research in the future, yet privacy concerns, software deprecation, changes in file formats, or lack of proper documentation may present obstacles to investigators. Research support librarians need to be cognizant that open data does not equate to access to all data points and that challenges of redacted information will create challenges for researchers librarians alike.

Promoting Open Educational Resources and Other Alternatives to Traditional Textbooks

Lea Leininger

Health Sciences Librarian, University of North Carolina at Greensboro, Greensboro, North Carolina

Objectives: To describe efforts to promote faculty adoption of open educational resources and other alternatives to traditional textbooks at the University of North Carolina at Greensboro, a public university with approximately 18,000 students including a school of nursing and several other health science programs.

Methods: Outreach during Fall 2014 included a campus wide faculty forum and library guide to open educational resources (OER). Faculty are being encouraged to consult liaison librarians for help identifying alternatives to traditional textbooks. A grant program has been proposed for Spring 2015 to incentivize the use of OER or library-licensed materials in lieu of traditional textbooks. Terms of the grant are scheduled to be announced in mid-Spring 2015.

Results: Faculty reactions to open educational resources have been mixed. Status of the project and future plans will be discussed.

When

Pamela L. Shaw

Biosciences & Bioinformatics Librarian, Northwestern University Feinberg School of Medicine, Chicago, Illinois

Cunera M. Buys

E-Science Librarian, Northwestern University, Evanston, Illinois

Objectives: Librarians were recruited by a multi-disciplinary research collaborative to advise them on the feasibility of building a data-sharing platform for studies on early childhood development and later outcomes. This “easy task” was actually quite complex: encompassing many kinds of data from very diverse research fields. We present the results of a 6-month project to frame a data collection.

Methods: The repository project investigation group was composed of librarians with expertise in cataloging and metadata, e-science and data management and literature searching. The group also included researchers from the developmental collaborative itself. Names of 150 researchers in the collaborative were identified by the collaborative board and provided to the repository investigation group. A literature review of studies by these 150 members was undertaken, utilizing PubMed and Web of Science author and keyword searches. The results of this review were put into an Excel sheet for identification of research initiatives, data types and projects in which the collaborative members were principal investigators or corresponding authors. Interviews of 5 researchers targeted by the collaborative faculty board were conducted using the Purdue Data Curation Profiles Toolkit. A consultant was contracted to assist the group in formulating an achievable goal for the project.

Results: The literature search retrieved over 700 publications by the research collaborative members. The Data Curation Profile interviews from the five targeted faculty were transcribed and written into profile summaries for inclusion into an executive report for the collaborative's board. The literature from the remaining members was reviewed by librarians and summaries of data types were assessed for appropriate metadata standards by cataloging experts. The report was written and submitted to the collaborative's advisory board in January of 2015.

Conclusions: Researchers' understanding of data organization and management is highly discipline-specific. Originally, project researchers thought that building a repository for data would be a simple task, because they were only considering survey data that was neatly stored in spreadsheets. When faced with the challenges of sharing video, MRI and other non-text-based data, the nature and expectations for this project changed. The project group recommended that a data "catalog" website would be the best solution for this project.

Tuesday, May 19, 3:00 PM – 4:25 PM
Room: Austin Convention Center, Level Four, Room 19B

Veterinary Medical Libraries Section

Innovative Services for Enhancing Library Value

Advancing the Success of the Research Enterprise: Research Connection

M.J. Tooley, AHIP, FMLA

Associate Vice President, Academic Affairs/Executive Director, University of Maryland, Baltimore, Maryland

Alexa Mayo, AHIP

Associate Director for Services, Health Sciences and Human Services Library, Baltimore, Maryland

Objectives: Research Connection, a comprehensive suite of both traditional and innovative research services, was designed specifically for the researcher. Eight distinct services including Research Impact Assessment, Systematic Reviews, Publication Strategies, and IRB Consent Form Review are streamlined into one marketable program. Through Research Connection, we reframe the value that library expertise adds to the success of the researcher.

Methods: In a large academic health center, the research enterprise and research faculty provide economic and intellectual capital to the university. With expertise and information resources, faculty librarians provide a key infrastructure for discovery. Prompted by a focus on translational science and an emphasis on increased research effectiveness, the library team examined new avenues to add value to the research experience. The team assessed researchers' information needs, identified needed services, and developed a roadmap for implementation. Faculty librarians reframed traditional services, and, using task groups and pilot projects, designed cutting-edge programs. This cohesive suite of research support services, Research Connection, was branded and marketed extensively across the university. This paper describes how we designed Research Connection, built its infrastructure, and are creating additional services to advance research success at the University.

Results: Statistics regarding the first year of this service will be shared during the presentation.

Conclusions: Research Connection has been a success actually and philosophically. Statistical and anecdotal evidence will be shared along with future plans for the program.

Development of a Value-Added Database of Evaluated Systematic Reviews in Veterinary Medicine: DVM Evidence

Margaret J. Foster, AHIP

Associate Professor, Systematic Reviews and Research Coordinator, Texas A&M University, College Station, Texas

Heather K. Moberly, AHIP

Coordinator of Veterinary Services, Texas A&M University, College Station, Texas

Thomas Derek Halling, AHIP

On-site Services Librarian, Texas A&M University, College Station, Texas

Objectives: This presentation will describe the development of the Database of Veterinary Medicine Evidence (DVM Evidence). The database was created by collecting, annotating, and evaluating systematic reviews and meta-analyses of relevance to veterinary medicine.

Methods: The process includes four steps, similar to conducting a systematic review: identification, selection, appraisal, and data abstraction. Identification includes searching bibliographic databases (MEDLINE, Cab Abstracts, and more), grey literature, and expert selected list of conference proceedings and journal titles. The selection and appraisal process was completed independently by 2 team members, with disagreements settled by consensus. The appraisal process utilized AMSTAR and PRISMA. The data abstraction form includes citation, review question, inclusion criteria, topic, resources searched, and list of included primary studies. The database will be open access and browsable by species, specialty area, and type of study as well as searchable by keywords, author(s), journal titles, and year. Collaboration will be sought with librarians, researchers, and veterinarians to add in various perspectives.

Results: A pilot group of 20 studies was selected by the team's systematic review expert based on criteria designed to facilitate training team members in appraisal, coding, and testing the coding form. The coding form which incorporates AMSTAR, PRISMA, and custom questions, was developed in Qualtrics, a subscription based survey tool. Although initially the survey format of Qualtrics had some promise as a tool for the coding form, several issues were found during the pilot phase. The team decided to build a custom form that provides more flexibility with importing and exporting data to and from the database, and more control in the desired outcome of the resource. The team chose MySQL for the database management system, and PHP as the scripting language, because these software are supported by the library IT department, powerful and flexible enough to accomplish the tasks, and common enough for others to adapt them as the database evolves and personnel change occurs. Graduate students, selected for their expertise with MySQL and PHP, created the database and public interfaces with design input from team members. During each step of the process, the team considered needs of potential external evaluators.

Conclusions: Developing a systematic review database of this complexity takes a team with a variety of skills, strategic planning, and frequent checkpoints along the way. The next step will focus on the usability of the custom made form and the search interface with external evaluators.

Encouraging Creativity and Innovation in the Library with 3D Printing

Hannah F. Norton

Reference & Liaison Librarian, University of Florida, Gainesville, Florida

Sara Gonzalez

Physical Sciences, Mathematics, & Visualization Librarian, University of Florida, Gainesville, Florida

Donald David

IT Expert, University of Florida, Gainesville, Florida

Objective: To provide a venue for creativity, innovation, and testing of new technologies, our library offers 3D printing and scanning services to faculty, students, and staff at our institution. This presentation addresses outreach efforts for this service and ways our patrons are using it in their education, research, and clinical practice.

Methods: Public 3D printing services were introduced in our library system in the spring of 2014, allowing faculty, students, and staff to print in PLA plastic at the Marston Science Library, Health Science Center Library, and Education Library. Initial implementation efforts involved training of library staff to accept print jobs, advise faculty and students on 3D printing, and trouble-shoot inevitable problems. With the service fully implemented, librarians and IT specialists can focus more on outreach and training for library users in ways to find, create, and modify 3D models appropriate for printing on our equipment.

Results: In addition to simply printing items for fun, our users are taking advantage of the service to print equipment and experimental parts, patient-specific models, and instructional objects (e.g. anatomical models). Even when uses are not explicitly educational, employing the library's service familiarizes our users with this new technology, minimizing barriers for our campus community to experiment with 3D printing and scanning. We have been able to add colored filament to our available printing options, expanding potential uses. While the service has been well-received, ongoing needs for machine repair have impeded broader adoption.

Conclusions: 3D printing has great potential for biomedical research and teaching and libraries are well-situated to bring this newly accessible technology to students and faculty. However, a strong willingness to learn new technologies, flexibility, and trouble-shooting skills are required.

Pushing the Envelope: A Program for Illustrating Research Productivity and Impact Narratives

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Objectives: Evaluation of research productivity and impact is an area of increasing interest in academic medicine and provides medical libraries with opportunities to demonstrate transformative service models. Medical libraries offer substantial expertise in navigating the ever-expanding array of resources that exist to illustrate a narrative based on productivity and impact which can be parlayed into innovative programs aligned with institutional needs.

Methods: A medical library scholarly communications program was expanded to include evaluation services for biomedical research productivity and impact at a school of medicine comprised of 20 academic departments, 11 programs and divisions, and 25 specialized research centers. The new publishing and evaluation support program was designed to address the unique analytical and reporting needs of authors, investigators, research teams, and administrators. Examples of services include publication and citation reports for authors and investigators; supplementing promotion and tenure dossiers; recruiting reports; justification for funding applications; department and institutional benchmarking; to name a few. Two professional librarians are responsible for the publishing and evaluation support program with additional staff providing support as needed. This paper will report on the publishing and evaluation support program activities and include examples of reports to demonstrate how commonly-held library resources can be transformed into innovative programs.

Results: The new publishing and evaluation support program was officially launched in 2014. A new template for a publication report was created to standardize reports. The program has further expanded to include support with the new NIH Biosketch format. Word of mouth has proven to be a very effective tool for increasing the awareness of the new program.

Conclusions: The program feedback has been positive with many referrals. We continue to seek opportunities for growth and improvement. Some challenges include keeping current with new evaluation methodologies, identifying appropriate bibliometric-based analyses for specific purposes, learning new software applications, and developing standard procedures for program activities and reports. Despite these challenges, the publishing and evaluation support program represents a service model well-suited for academic libraries. The program will evolve based on needs of authors, investigators, research teams, and administrators.

An Initiative to Address Name Ambiguity (ORCID): Its Implementation at a Large Academic Institution

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Objectives: ORCID is an open, non-profit, community-based effort to create and maintain a registry of unique research identifiers and a transparent method of linking research activities and outputs to these identifiers. ORCID provides a standard unique author identifier that distinguishes a researcher and also aims at preventing authorship confusion by solving the name ambiguity problem in research and scholarly communications.

Methods: Our library signed a Member License Agreement with ORCID. The Agreement allows us to, among other things, create ORCID records, deposit to existing ORCID records, and use various APIs and the data those APIs can access to perform tasks associated with ORCID IDs. A task force was assembled to discuss steps for the implementation of ORCID across our campus. The task force felt that the library should facilitate and encourage the use of ORCID. Doing so would position our library as an early adopter and provide us with opportunities to shape it in ways that will more

directly benefit our institution.

Results: The first phase of implementation was to assign ORCIDs to all librarians, approximately 156, piloting and soliciting feedback on our informational material; training staff so they were ready to answer questions when outreach activities moved ahead. Phase 2 was to pilot with a select group of early adopters. The group included faculty in the Departments of Human Genetics, Computational Medicine and Bioinformatics, and Molecular and Integrative Physiology. Phase 3 of the implementation involves including ORCIDs into several online systems including the university directory which contains profiles for all current members of the university community.

Conclusions: In implementing ORCID we are joining in the promotion of the use of ORCID in the scientific and publishing community in facilitating the disambiguation of author names and assuring that authors and researchers at our institution get credit for their research and professional activities.

Tuesday, May 19, 6:00 PM – 7:25 PM
Room: Austin Convention Center, Level Four, Ballroom F

Medical Informatics Section

Tech Trends VIII Section Program

#1 The Quantified Self

Jon Goodell, AHIP

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Gary Wolf and Kevin Kelly of *Wired* magazine coined the term "quantified self" in 2007. Quantified self uses personal genomics, activity tracking, and other metrics to evaluate and enhance personal performance.

#2 The Internet of Things

Kimberley Barker

Emerging Technology & Digital Initiatives Librarian, University of Virginia, Charlottesville, Virginia

#3 Zombie Emergency!: A Tool for Gamification and Promotion

Jason Bengtson

Innovation Architect, The Houston Academy of Medicine-Texas Medical Center Library, Houston, Texas

#5 What Will These Technologies Look Like Twenty Years from Now?

Eric Schnell

Professor, The Ohio State University, Columbus, Ohio