

Research Section Spotlight

MLA 2017 Research Section Research Awards

Congratulations to the Winning Research Papers and Posters from MLA '17!

The MLA Research Section is pleased to announce the winners for best research papers and posters presented at the MLA 2017 annual meeting in Seattle, WA. Thank you to the 57 judges who volunteered their expertise to help select these deserving awardees. To learn more about the awards and selection process, visit the Research Section website at

<http://www.mlanet.org/p/cm/ld/fid=938>.

Contributed Papers

1st Place

Authors: Christy Jarvis, AHIP, Head of Information Resources and Digital Initiatives, University of Utah, Salt Lake City, UT; Melissa Rethlefsen, AHIP, Deputy Director / Associate Librarian, Spencer S. Eccles Health Sciences Library, Salt Lake City, UT

Title: Daring to Dive Deep into the Citation Data: Going Head to Head with SciHub

Abstract:

Objectives: To analyze the extent to which the library is fulfilling the information needs of its patrons in light of recent data showing heavy usage of SciHub in [our metro city] and specifically to gain insight into the percentage of referenced resources and content areas that were not made available to researchers through library funded subscriptions.

Methods: Using Scopus, we identified papers published by the institution's health sciences faculty in each of the previous 5 years. Papers co-authored by researchers at other institutions were excluded in order to focus the analysis solely on information resources available to scholars at the target institution. The citations from the resulting set of publications were extracted to spreadsheets, where they were subjected to a data normalization process. Incomplete or obviously erroneous references were removed. The remaining set of citations was sorted alphabetically by journal title, then secondarily by citation year. Using a combination of data sources, including publisher entitlement reports, catalog records, and previously downloaded holdings reports, we compared each citation to the library's collection at year of

Research Section Spotlight

citation to determine if access to the cited resource was provided and paid for by the library.

Results: Published literature authored by University of Utah health sciences faculty between 2012 and 2016 yielded 119,794 citations for analysis. The libraries had print or electronic access to 99,298 (82.89%) of these cited resources. Another 9,220 (7.7%) were accessible from open access platforms, leaving only 11,084 (9.25%) citations that needed to be obtained from other sources, such as interlibrary loan, pay-per-view, or illegitimate sites such as Sci-Hub. Of the cited, but not provided, literature, 26% comes from backfile content whereas 74% comes from more recently published work. Identified collection gaps include the disciplines of Neurology, Cardiology, and Oncology.

Conclusion: A comprehensive evaluation of health sciences author citations over a 5-year period demonstrated that the vast majority were available from library-funded resources, thereby suggesting that the library's collection has been adequately meeting the needs of researchers and scholars. This study provides valuable insight into faculty information-seeking behaviors and has implications for future collection development, service offerings, and funding priorities within the library. Further study is needed to explore correlations between library-funded access to cited resources and other university metrics such as faculty recruitment and grant funding, as well as to investigate purported Sci-Hub activity in light of our findings.

2nd Place

Authors: Joanne Marshall, AHIP, FMLA, Research Professor, School of Information and Library Science Chapel Hill, NC; Amber Wells, Doctoral Graduate, Dept of Sociology, Chapel Hill, NC; Kathel Dunn, Associate Fellowship Program Director, National Library of Medicine, Bethesda, MD; Joyce Backus, Associate Director for Library Operations, National Library of Medicine, Bethesda, MD

Title: The Role of MEDLINE in Patient Care: Results of a Secondary Analysis of the Value of Libraries Study

Abstract:

Objectives: What role does the MEDLINE database play in relation to other information resources that are available to health care providers? What is the role of MEDLINE in positively impacting patient care? Since health care providers use multiple information resources in

Research Section Spotlight

providing patient care, what is the specific role of MEDLINE?

Methods: A previous survey on the use of health information resources for patient care obtained 16,122 responses from 56 hospitals in the U.S. and Canada. The study asked respondents to indicate resources used in answering specific clinical questions. On average, respondents reported using 3.5 resources to answer their question. This analysis used advanced descriptive statistics and regression analysis to examine the specific information resources used and how they were used in combination with one another. The use of more resources was associated with more changes made to patient care and increased avoidance of adverse events. MEDLINE was more likely to be among the resources consulted than any other information resource except journals. The analysis reported in this paper provides new insights into how MEDLINE is used in conjunction with other resources to answer clinical questions.

Results: Our additional analysis of the Value Study data found that MEDLINE and online journals were the two most frequently used information resources. Respondents reported using an average of 3.5 resources when seeking additional information related to a specific patient care decision making situation. Using more information resources was associated with improved clinical decision making and a higher probability of making changes to patient care and avoiding adverse events. MEDLINE was most likely to be among the combinations of information resources used by physicians, residents and nurses.

Conclusion: MEDLINE continues to be a key information resource for health care providers as they seek answers to patient care questions. The MEDLINE database is also used in the preparation of many other specialized health information resources and point of care information tools. Since health professionals use multiple information resources, libraries and librarians continue to have an important role in providing access to and supporting the use of a wide range of information tools.

Honorable Mention

Authors: Tanja Bekhuis, AHIP, Principal Scientist, TCB Research & Indexing LLC, Pittsburgh, PA

Title: Training in Support of Data-Driven Research: A Qualitative Study of Library Workshops in Top National Institutes of Health-Funded and National Science Foundation-Funded Universities

Research Section Spotlight

Abstract:

Objectives: In an age of data-driven research and competitive funding, libraries help their patrons acquire new skills. To do so, some offer workshops about knowledge discovery, analysis, and management of various kinds of data. The primary objective of this qualitative study was to explore the nature of workshops offered by libraries to support data-driven research in top NIH- and NSF-funded universities. Additionally, we developed a catalog of workshops, and indexed the resources and thematic content.

Methods: To identify top-funded universities, we used NIH Research Portfolio Online Reporting Tools and the NSF Budget Internet Information System. From corresponding websites, we extracted information on 99 workshops offered by health sciences libraries (n=5) and main libraries (n=5) in schools funded by NIH and NSF, respectively. Workshop title, duration, and description were catalogued by library and source of federal funding for the university. We used NVivo 11 Pro (QSR International) for qualitative data analysis and TExtract® (TEXYZ) to semi-automate indexing the content of the catalog. Themes were first identified in textual patterns and then were refined by an analyst. Thematic overlap was described across funding source. Additionally, we identified themes unique to each subset.

Results: Main libraries in NSF-funded schools offered 36% more workshops than health sciences libraries in NIH-funded schools (57 vs 42). Overall workshop duration ranged from 1 to 16 hours in a bimodal distribution (1st mode = 1 hour; 2nd mode = 3 hours). The distribution of duration for NSF schools differed from the NIH distribution. We identified 15 main themes overall: *statistical programming* and *data visualization* occurred most often, and *finding funds for research* and *open science* least often. Thematic distributions varied with funding source. For example, *bioinformatics* occurred most often in the NIH-funded subset and *statistical programming* in the NSF subset. For each subset, 20 most informative indexing terms were identified after sorting and discretizing into 7 quantiles. Top indexing terms included: *data visualization*, *pathway analysis*, and *data management* (NIH schools); *data analysis*, *data management plan (DMP)*, and *Python* (NSF schools).

Conclusion: A catalog of workshops organized by university funding source and library, along with 2 indexes (resource and subject), will be publicly available. The analytical results, as well as index content, yield insights regarding workshop coverage. Implications for strategic planning and development of library workshops in support of data-driven research will be discussed.

Research Section Spotlight

Contributed Posters

1st Place

Authors: Angela Spencer, Manager, C. Alan McAfee MD Medical Library, Chesterfield, MO; Elizabeth Laera, Medical Librarian, Brookwood Baptist Health, Birmingham, AL; Halyna Liszczyński, Director, Library Services, St. Elizabeth Medical Center, Utica, NY; Louise McLaughlin, Information Specialist, Woman's Health Sciences Library, Baton Rouge, LA; Kathy Zeblicky, Medical Library Manager, Phoenix Children's Hospital, Phoenix, AZ

Title: Solo Librarians: Demographics, Duties, Needs, and Challenges

Abstract:

Objective: To obtain data on how many librarians classify themselves as solo librarians within a medical/hospital setting. Solo librarians constantly face challenges to maintain and expand services vital to their users. By quantifying their number and needs, a stronger voice can be developed.

Methods: A ten question survey using SurveyMonkey was sent to various medical library related listservs of interest to solo librarians.

Results: 383 surveys were returned, the majority from hospital and academic librarians. Other settings include clinics, organizations, research institutions and Veteran's institutions. Duties showed the variety of hats a solo can wear. Duties included: reference, interlibrary loan, teaching, committee work, website development, marketing, creating policies/procedures, writing grants, archives, informatics and other work. The "best challenges" question was the most insightful into what the needs are for solos. Major challenges included: funding/budget, awareness/visibility, time management, value/ROI/proving your worth, staffing, space, promotion/marketing/outreach, professional development, technology and organizational mergers.

Discussion: The full survey results quantify the size of the solo librarian population, and the contributions and challenges they face working in solo settings. This data can contribute useful information to discussions on best ways to support, educate, inform and advocate for this

Research Section Spotlight

population.

Conclusion/Next Steps: Solo Librarians are faced with similar financial, marketing and operational challenges regardless of setting. We hope to encourage peers to share their challenges and concerns and work with NN/LM and MLA to educate them about solo librarians' needs and concerns so that we can sustain our future.

2nd Place

Authors: Nicole Theis-Mahon, Liaison to the School of Dentistry & HSL Collections Coordinator, University of Minnesota, Minneapolis, MN; Shanda Hunt, Public Health Library Liaison & Data Curation Specialist, Health Sciences Libraries, Minneapolis, MN

Title: My Doctor Said What!? Identifying and Assessing Online Health Information Resources

Abstract:

Objectives: Health information consumers look to the Internet to find answers to questions about their health or that of a loved one. We conducted a study to identify where individuals find online health information, how they use it, and what they think is missing. Results from this study are being used to make recommendations of how to improve services to this population.

Methods: The University of Minnesota Health Sciences Libraries conducted a cross-sectional study of adults in August 2016. The survey instrument was adapted from the eHealth Literacy Scale (eHEALS) and the Patient Activation Measure (PAM-13), administered electronically on tablets at the Minnesota State Fair, and took approximately six minutes to complete. Convenience sampling yielded a total of 281 participants. Analysis of descriptive statistics and statistics to explore relationships between variables were conducted using R, and a qualitative analysis of one survey item was conducted using NVivo.

Results/Conclusion: Preliminary results show that a majority of participants use a search engine, such as Google, WebMD, or the Mayo Clinic website, to locate online health information. While most respondents were confident in their ability to evaluate the health resources they find online, only half identified indicators of quality health information. This result was confounded by the high number of participants who were health providers. Participants identified personalization of and interactivity with health websites as highly desirable.

Research Section Spotlight

Honorable Mention

Authors: Hannah Norton, Interim Fackler Director, Associate University Librarian, University of Florida, Gainesville, FL; Mary Edwards, Reference & Liaison Librarian, Health Science Center Library, Gainesville, FL; Ariel Pomputius, Health Sciences Liaison Librarian, Health Science Center Library, Gainesville, FL; Michele Tennant, Interim Fackler Director, Health Science Center Libraries, Gainesville, FL

Title: Tracking Tech Trends: Studying Patron Technology Use through Annual Surveying

Abstract:

Objectives: At an academic health sciences library serving students, faculty, and staff across a wide variety of disciplines, studying library patrons' technology use, particularly in areas of mobile technology, provides necessary information on intersection points for library services. Administering a similar survey annually for five years generates a holistic view of patrons' technology needs and preferences over time.

Methods: Beginning in 2012, the University of Florida (UF) Health Science Center Library (HSCL) began administering a 16-question survey designed by the University of Southern California Norris Medical Library to address technology use of health professional students and faculty and their interest in related library services. For three years we participated in a multi-institution implementation of this survey; when the collaboration ended, we continued to administer the survey at UF. While some questions have been modified over time for clarity or changes in available technology, many are consistent across the five years of survey implementation, allowing analysis of trends over time in use of specific technologies and service needs at our institution.

Results: Smartphone ownership among survey respondents is nearly universal (ranging from 87.6% to 95.7% over the past 5 years), and a majority of respondents also own a tablet (from 51.1% to 70.2%). While respondents were likely to check library hours, use medical apps, and use library electronic resources from their smartphone or tablet, they reported being unlikely to friend or follow the library on Facebook or Twitter or send a call number from the catalog. One simple change implemented in response to survey results was to add the library's hours to the "Quick Links" portion of the library's website; while the hours are featured on other parts of the site, the Quick Links are the most prominent portion of the site's mobile version. Likewise, when survey data indicated that respondents were highly interested in

Research Section Spotlight

training on mobile device apps, the HSCL developed a stand-alone workshop entitled “Mobile Resources for Health.” Trends that have not yet been explored further include respondents’ preference for print books for both academic (53.1% to 57.3%) and leisure (53.2% to 55.2%) reading, as compared to ebooks.

Conclusions: Annual review of survey results has led to incremental changes in services offered. Reviewing the aggregate data allows for more strategic consideration of future directions, with implications towards marketing the library’s resources, training development, and service development.
