

The Role of Practitioners in LIS Scholarship: A Case Study from the University of Maryland

Background

Librarians who practice bibliometrics are often asked to document the contribution of an academic department or research group to a larger body of scholarship. Here I explore techniques to address these requests with a case study examining Library and Information Science (LIS) scholarship at the University of Maryland (UMD) Libraries. This analysis relied on bibliographic data from three sources:

- Work produced by librarians at the University of Maryland since 2008 was collected from Google Scholar using R's "scholar" package. Title and author co-occurrence networks were plotted in Gephi, with cluster analysis performed by VOSviewer.
- In the EBSCO Library and Information Science Source (LISS) database, 8,924 records related to the "academic libraries" subject heading were retrieved via bulk export without keyword or abstracts included. Title words were analyzed using R's tm package.
- In Web of Science (WoS), the 5,000 most commonly used records in the "Information Science Library Science" research area were retrieved along with keywords and abstracts. Records in journals that focused exclusively on computer science & information systems were excluded. An author keyword network was created using R's bibliometrix package and visualized in VOSviewer.

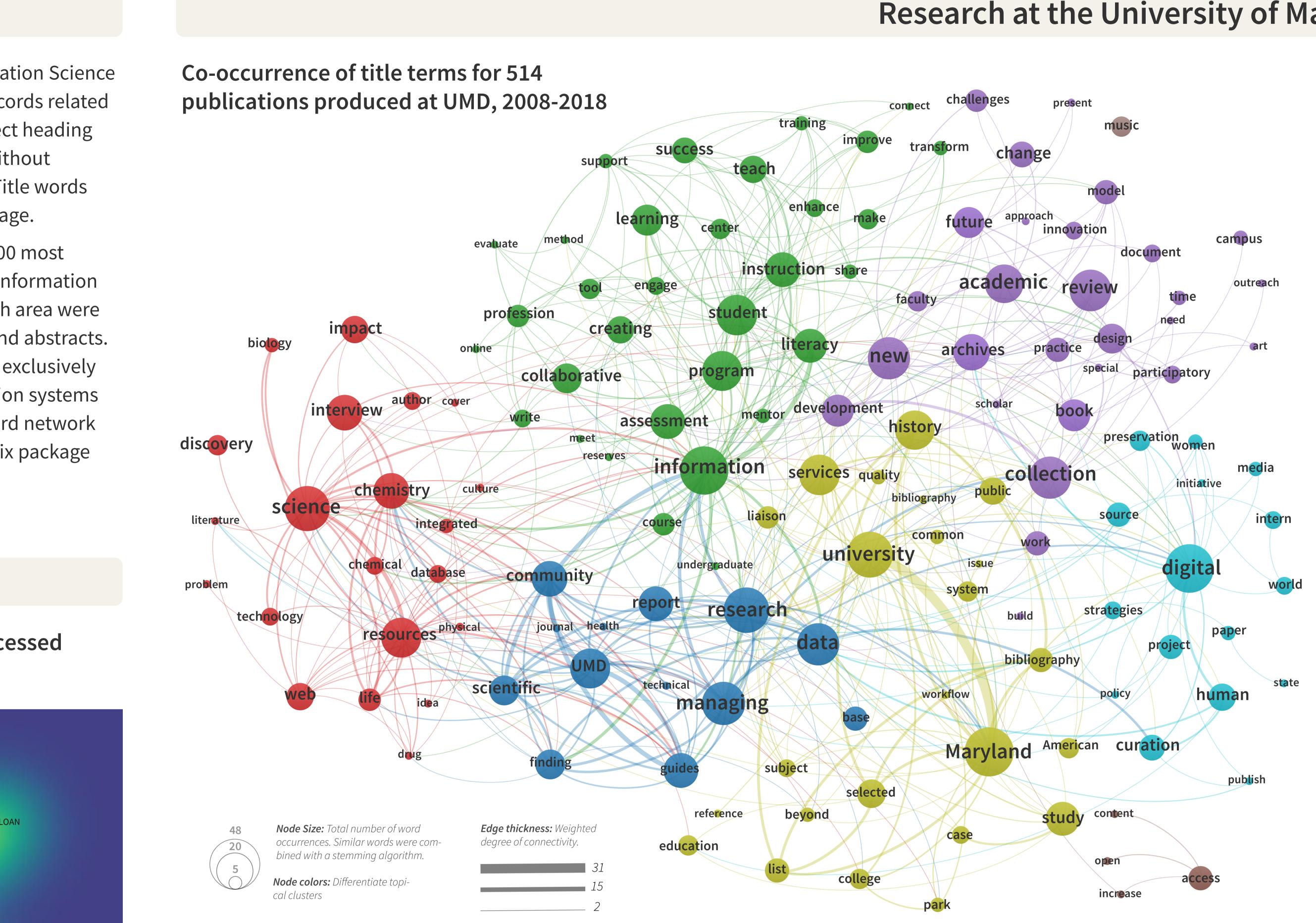
LIS in Context

Author-defined keywords in Web of Science's 5,000 most frequently accessed library science publications, 2008-2018

SOCIAL CAPITAL	
TWITTER	
SOCIAL NETWORKING USER SATISFACTION SURVEY	INTERLIBRAN INTERLENDING DOCUMENT DELIVERY
PUBLIC LIBRARIES E-RESOURCES PRIVACY ACADEMIC STAFF SOCIAL MEDIA DATA MINING	COPYRIGHT CONSORTIA E-BOOKS
INFORMATION NEEDS LIBRARY USERS INFORMATION NEEDS LIBRARY USERS INTERNET DIGITAL DIVIDE	ELECTRONIC RESOURCES EBOOKS COLLECTION DEVELOPMENT LIBRARY
SOCIAL NETWORKS LIBRARY 2.0 WEB 2.0 INFORMATION SEEKING MOBILE LEARNING ICT LIBRARY 2.0 E-GOVERNMENT ACADEMIC LIBRARIES MARKETING USER INTER UNIVERSITY LIBRARIES	COLLECTIONS MANAGEMENT RFACES ELECTRONIC JOURNALS
INFORMATION SOURCES INFORMATION SEARCHES E-LEARNING DATA WORLDWIDE WEB INNOVATION	A ANALYSIS
ACCESS TO INFORMATION STUDENTS LEARNING LIBRARIANS LIBRARIES DIGITAL LIBRARIES DIGITAL LIBRARIES	OPEN ACCESS
INFORMATION LITERACY EVALUATION WEB SITES INFORMATION SEEKING BEHAVIOUR INFORMATION MANAGEMENT	ARCHIVES CITATION ANALYSIS BIBLIOMETRICS BIBLIOMETRIC ANAL
SURVEYS INFORMATION KNOWLEDGE MANAGEMENT QUALITATIVE RESEARCH LIBRARY SYSTEMS KNOWLEDGE KNOWLEDGE KNOWLEDGE SHARING	INSTITUTIONAL REPOSITORIES GOOG GINES
QUESTIONNAIRES LIS EDUCATION KNOWLEDGE SHARING INFORMATION SYSTEMS	METADATA
MEDICAL COMPETENCIES PROFESSIONAL DEVELOPMENT USABILITY INDEX LIBRARIANSHIP EDUCATION AND TRAINING HEALTH SCIENCE INFORMATION SKILLS	XING DATA MANAGEMENT
TEACHING	SEMANTIC WEB

The 150 most frequently chosen keywords in the WoS records were mapped and clustered based on their co-occurrence in the same papers. These terms are broader in scope than the title terms that represent scholarship at UMD libraries. Words related to instruction, archives, and data management are found in both Web of Science and at UMD. Several clusters, however, are unique to Web of Science; these relate to social media, knowledge management, and informatics.

Amy Trost, The Universities at Shady Grove/University of Maryland Libraries



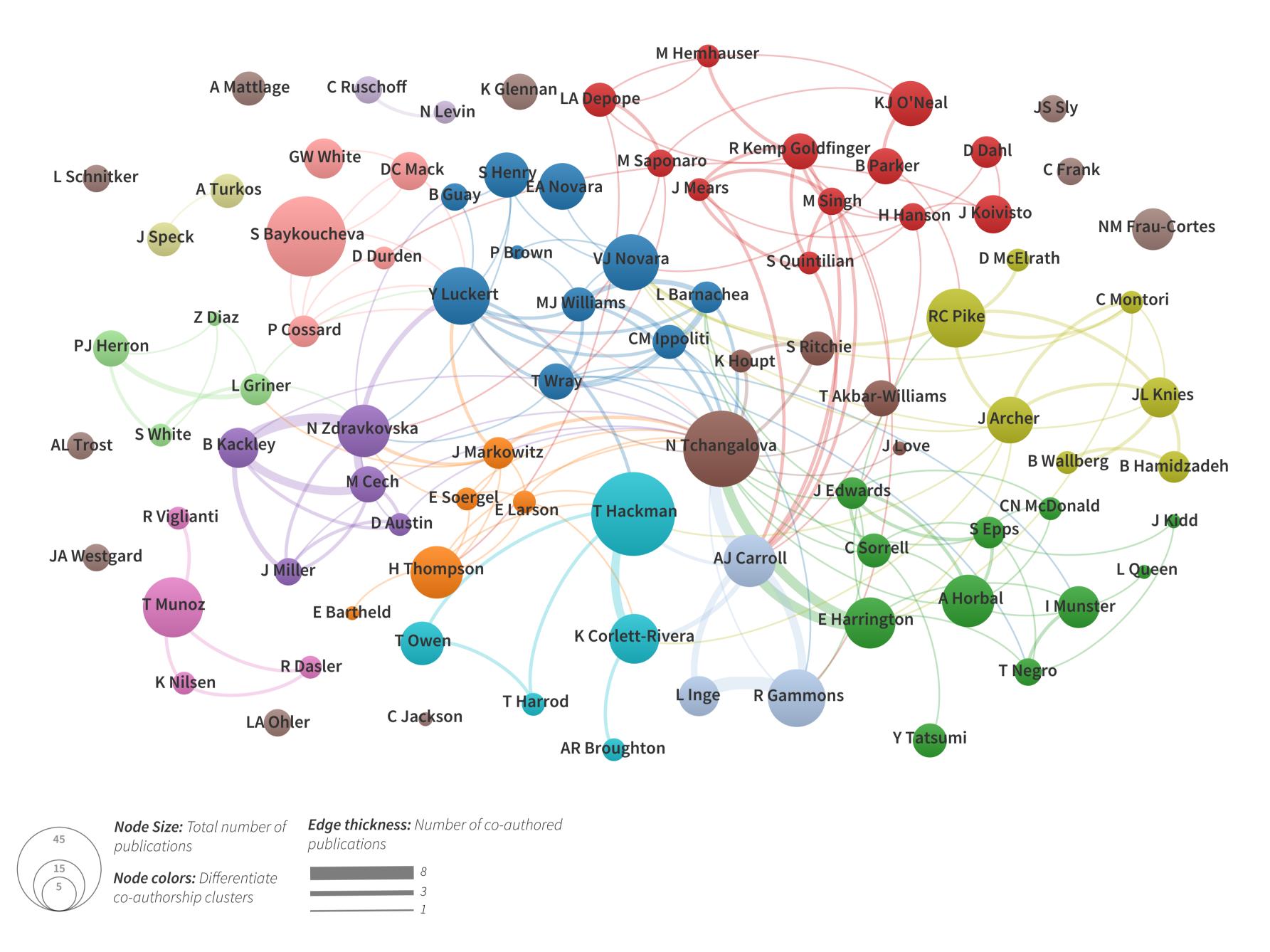
	Comparison	of commonly	use	d	ti	tle	W	ords	
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(terms that do not overlap are highlighted in red)

In the LIS.	S database	By UMD Libraries authors			
services	learning	Maryland	review		
information	digital	digital	student		
study	reference	information	services		
students	assessment	university	program		
collection	user	research	resources		
research	books	science	UMD		
resources	collaboration	managing	history		
development	access	data	academic		
management	faculty	collection	archives		
literacy	education	new	community		

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Research at the University of Maryland Libraries



179 co-authorship connections were plotted among 89 authors in the university libraries (above). An additional 267 authors external to the libraries, not listed here, were associated with the set of 514 papers used in this analysis.

A clustered network analysis (above) of title terms in UMD Libraries scholarship shows seven clusters assigned by VOSviewer. They mirror many of the major subdisciplines in academic librarianship, including digital scholarship (light blue), STEM disciplines (red), instruction (green) and research data management (blue).

The most common LISS title words related to academic librarianship (at left) display a surprising degree of overlap with those used in UMD library scholarship. Terms that do not closely overlap are highlighted in red. UMD's focus on digital topics and specific disciplines, such as science and history, emerged. The terms "reference," "collaboration," and "access," prominent in the LISS collection, were not commonly found in UMD titles.

Conclusions

Network analysis and text mining allow librarians to tell a bibliometric story in broad terms. This particular study shows that practitioner scholarship at the University of Maryland overlaps with much of the work in the larger field of LIS. A few topics in the broader collection LIS documents—reference services, access, and social media, for example—were not found in the UMD title analysis. Without a more careful documentation of the scope of each data source, however, it is difficult to draw any firm



Co-authorship network of university librarians for works published between 2008 and 2018

conclusions. Google Scholar, in particular, is an imperfect platform for collecting bibliographic information.

In the future, documenting UMD scholarship via the university's repository (DRUM) in conjunction with Web of Science records would enable keyword and abstract analysis. This exercise could also be expanded to include a deeper, more focused qualitative examination of the way LIS practitioners describe their scholarly work.