



A BIBLIOMETRIC EXPLORATION OF LIS SCHOLARSHIP

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Priddy Library

INTRODUCTION

Librarians who practice bibliometrics are often asked to compare the research output 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 the field of Library and Information Science (LIS). Scholarship around academic libraries is evaluated in two ways: broadly, and as produced by librarians within the University System of Maryland (USM).

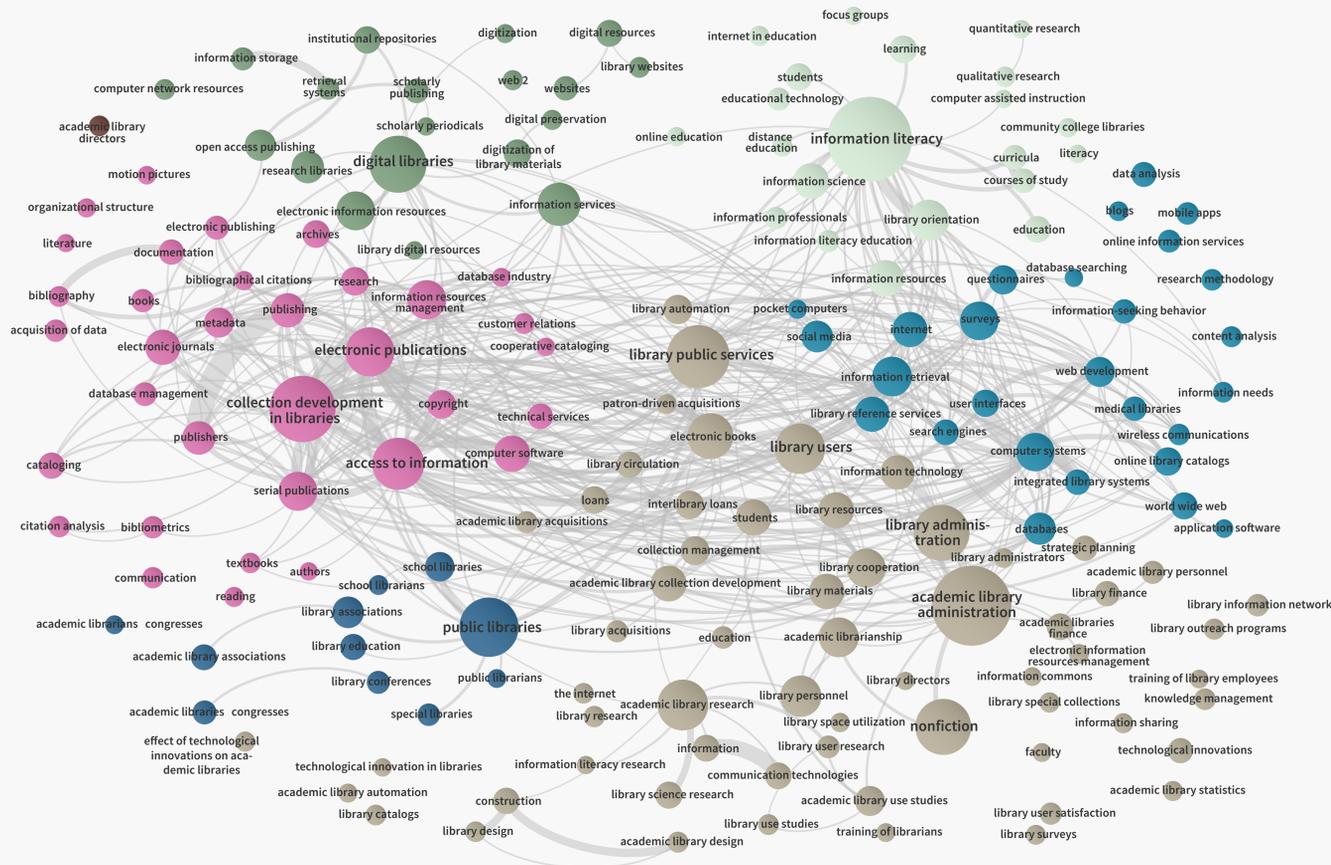
This analysis relies on bibliographic data from EBSCO's Library and Information Science Source (LISS) database for the time period of 2008-2019. 16,248 records related to the exploded "academic

libraries" subject heading were retrieved via bulk export. The analysis below explores the controlled vocabulary associated with these articles and endeavors to answer three questions:

1. Can the co-occurrence of thesaurus terms be used to map the research landscape around academic librarianship?
2. Are there trends in keyword usage over time?
3. How is the research focus of 140 published librarians in the University System of Maryland and Affiliated Institutions (USMAI) consortium different from the focus of the broader collection?

ACADEMIC LIBRARIANSHIP: THE RESEARCH LANDSCAPE

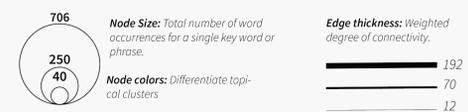
Co-occurrence of the most commonly assigned keywords related to academic librarianship, 2008-2019



A clustered network analysis (left) shows the 175 most commonly used thesaurus terms for the search result of 16,248 records. Roughly a dozen very common terms (e.g., libraries, academic librarians, etc.) were removed first. Six major clusters reveal some surprising connections among the sub-disciplines within academic & research librarianship.

Digital and technical services are scattered throughout all six clusters. Scholarly publishing and digitization is split between two clusters (deep green and light blue). Professional associations and conferences (dark blue) are linked with public libraries, while many of the terms associated with staffing and development are in a separate (brown) cluster. Information literacy, the largest node in the network, anchors a cluster (light green) that is strongly linked to library instruction and related topics.

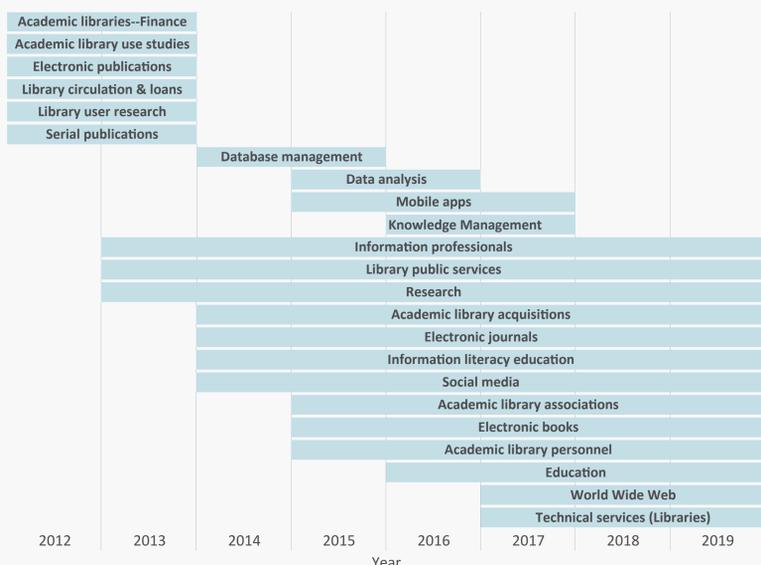
Network Legend



KEYWORD TRENDS

Burst detection algorithms identify periods of increased activity over time. The Sci2 tool identified 131 instances of increased keyword usage for the period from 2012-2019. The twenty-three most frequently used terms are pictured below. Along with the expected technology-related items, there are a few surprises on this list, including terms related to library associations and public services.

Keyword burst detection, 2012-2019



EVALUATING THE ROLE OF PRACTITIONERS

Below is a list of the most commonly assigned keywords for both USMAI authors and the full result set. Roughly two-thirds of the terms assigned USMAI authors are also in common general usage. Many of the terms exclusive to USMAI on this list are, unsurprisingly, more specialized (e.g., pocket computers, distance education).

A comparison of the most commonly assigned keywords

Both USMAI and General Paper Collection	USMAI Collection only	General Collection only
Academic library administration	Interlibrary loans	Academic library mergers
Academic library research	Library administration	Academic library personnel
Access to information	Library cooperation	Acquisition of data
Collection development in libraries	Library public services	Distance education
Computer software	Library reference services	Documentation
Copyright	Library science	Electronic information resources management
Digital libraries	Library users	Library reorganization
Education	Nonfiction	Literature
Electronic books	Public libraries	Pocket computers
Electronic journals	Social media	Videoconferencing
Electronic publications	Strategic planning	Writing
Information literacy	Students	
Information-seeking behavior	Surveys	
Institutional repositories	Technical services (Libraries)	
		Academic librarianship
		Electronic information resources
		Information resources
		Information resources management
		Information retrieval
		Information science
		Information services
		Library orientation
		Library personnel
		Library resources
		Serial publications

TOOLS USED

EBSCOhost's **Library and Information Science Source (LISS)** database for bulk access to records and thesaurus terms in XML format

Gephi to create network visualizations and perform cluster analysis. Visualizations were further refined in **Adobe Illustrator**

R Studio's xml library for reformatting LISS records and the tm (text mining) library for plotting the co-occurrence of keywords and phrases

Sci2 for burst detection of keywords and phrases