## Ensuring a Vibrant Future for LIS in iSchools

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# PRERELEASE: PART ONE



#### **Authors**

Amelia Acker, Cindy Aden, Maria Bonn, Chris Coward, Chance Hunt, Emily Knox, R., David Lankes, Michelle H. Martin, Marijel Melo, Ana Ndumu, Carole Palmer, Beth Patin, Brian Sturm, Mega Subramaniam, Andrea Thomer

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#### **Sponsors**



#### **Abstract**

This position paper is a product of LIS Forward, an initiative addressing the urgent question: As LIS evolves within the context of iSchools, how do we best position our research and education programs to lead the field and the future of libraries? Schools of library and information science led the establishment of the iSchool movement 20 years ago. Today, as iSchools balance investments across a growing range of disciplines and academic programs, their choices have serious consequences for the field of LIS and the library profession. Librarycentric research and education can be diluted or diminished, or it can be reinforced and enriched. This position paper, developed by faculty from seven information schools, claims that the future of iSchools and LIS is linked. Part 1 covers the historical context, profiles of LIS in iSchools, perspectives of leadership and early career faculty, and suggestions for strategic directions and investments. Part 2 contains several essays on contemporary issues in LIS and librarianship that iSchools are uniquely equipped to address. The purpose of this position paper is to encourage ongoing deliberation and action.

#### **Keywords**

Information schools, iSchools, Library and information science, Libraries, Librarianship

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Doug Parry

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Alexia Lozano

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## LIS Forward Founding Members

We wish to thank the deans of the seven iSchools for their foresight and commitment to a community-wide conversation on the future of LIS in iSchools. We look forward to expanding the coalition with the release of this position paper.















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### Declaration

ompelled by a sense of urgency concerning the future of LIS in information schools, we are contributing this position paper for consideration by the iSchool community and other LIS stakeholders.

Schools of library and information science led the establishment of the iSchool movement 20 years ago. Today, as iSchools balance investments across a growing range of disciplines and academic programs, their choices have serious consequences for the field of LIS and the library profession. Library-centric research and education can be diluted or diminished, or it can be reinforced and enriched. LIS Forward is our investment in shifting the tides toward the latter.

LIS must remain central in the work of iSchools. As the world navigates ever more daunting questions on the relationships among information, technology, people, and society, the social and humanistic values of librarianship need to undergird the full scope of an iSchool's identity and purpose.

Librarianship must be fueled by robust research and scholarship. Libraries serve as critical information infrastructure in a democratic society and continue to amass different roles and responsibilities in their communities. Their programs, services, collections, technologies, expertise, relationships, and practices need to evolve based on research-driven advances and discoveries. That work must be done in R1 universities, in the fertile multidisciplinary environment of iSchools, along with other information-centric metasciences like education, journalism, and communications. Furthermore, inquiry and new knowledge must continuously inform library education, as with other professional degrees such as social work, law, and architecture.

The future of iSchools and LIS are thus linked. Without LIS, iSchools lose their foundational roots, distinctive principles, and professional commitment to libraries as an information epicenter that democratizes discovery, participation, and learning. Thriving democracies require these trusted spaces to steward information

## Core values of librarianship

(ALA, 2019)

- Access
- Confidentiality/Privacy
- Democracy
- Diversity
- Education and Lifelong Learning
- Intellectual Freedom
- The Public Good
- Preservation
- Professionalism
- Service
- · Social Responsibility
- Sustainability

and knowledge over time and uplift all voices, especially those of historically marginalized and non-dominant communities. At the same time, without data science, informatics, HCI, AI, digital humanities, and critical information studies, LIS loses the iSchool promise of interdisciplinary and reciprocal gains.

With this paper, we invite constituents to respond and strategize on how LIS can thrive and grow as an intellectually and culturally vibrant field that centers libraries and works synergistically within iSchools to solve the information grand challenges of this era.

## Background

his position paper is a product of LIS Forward, an initiative addressing the urgent question: As LIS evolves within the context of iSchools, how do we best position our research and education programs to lead the field and the future of libraries? The question stems from recognition that the evolution of iSchools presents opportunities and challenges for LIS and that there is great value in working together to chart directions forward. To provide context for this position paper, this section traces the timeline of activities that led to the formation of the LIS Forward group and its work to date.

The initiative was seeded by internal strategic planning discussions in 2021 at the University of Washington Information School, where researchers were considering commitments to strengthening the field of library and information science. Assuming that other iSchools might also be engaging in related conversations, the UW reached out to a set of iSchool faculty and their deans to gauge interest in assembling a group for collective discussion and a future in-person convening. The inquiry struck a chord with all, and in fall 2021 an informal working group was formed, made up of senior and junior faculty from five iSchools: University of Illinois at Urbana-Champaign, University of Maryland, University of North Carolina at Chapel Hill, University of Texas at Austin, and University of Washington.

To inform priorities, the group consulted other faculty in their respective institutions, collected data about their LIS research and education programs, and surfaced topics for priority consideration. Through iteration across the early meetings, we identified a set of characteristics that would make our work most effective. We determined it should be:

**Forward-looking.** We believed the group's work should look to the future with constructive suggestions for strengthening LIS. Specifically, we committed to:

- A vision of LIS that takes full advantage of the growth of multidisciplinary knowledge and expertise in our iSchools.
- Fostering future leaders who will continue to champion LIS within iSchools.

**Constrained in scope.** To align with our orientation and experience, we agreed to:

- Hold two areas firmly out of bounds: accreditation and core curriculum. We acknowledged that both
  topics would inherently inform our conversations but were too expansive and complex for the remit
  of our group.
- Adhere to the lens of LIS in research-intensive iSchools in the U.S., emphasizing the unique opportunities and challenges in that environment.

**Focused on priority commitments.** Throughout our early discussions, two themes continuously surfaced that we contend should be non-negotiable priorities. They are commitments to:

- Diversifying the profession, our schools, and our research.
- Expanding partnerships with the library profession.

**Positional.** We determined that our most effective role would be as provocateurs, taking stances on issues to provoke discussion within the academic and professional LIS communities. This also reflects a practical consideration — our group had formed rather organically and did not fully represent LIS views. Accordingly, we decided to:

- Produce a position paper as our signature output.
- Include essays on key LIS topics that emerged in our early discussions (resulting in Part 2).

The LIS Forward activities that followed were designed to elicit input to inform our work on this position paper. We hosted a session at the 2022 iConference focused on "imagining 10 years of unprecedented progress in LIS research and education." Through their contributions to that session, the University of Arizona and Syracuse University began participating, expanding the working group to seven schools. In November 2022, we held a 3-day working meeting at UW Friday Harbor Laboratories on San Juan Island to frame and start developing the position paper. At the close of that meeting, we adopted the "Friday Harbor Papers" moniker for our outputs. Our engagement with the iSchools organization continued in coordination with the North America chair, Keith Marzullo, dean at University of Maryland iSchool. We participated in a virtual briefing and discussion with the leadership group in December 2022 and gave a formal presentation on our progress at their business meeting at the 2023 iConference in Barcelona. Our contribution to a panel session at ASIS&T 2022 also helped build awareness of LIS Forward. Through these activities, we encountered interests beyond our current institutional scope, among LIS programs of all kinds within and outside the U.S. In this paper, we have held fast to our focus on LIS in iSchools in U.S. research universities, but our aim is to serve as a launching point for more global conversations in the future.

Our work has been supported by the UW iSchool and its legacy award from the Gates Foundation, with additional resources from the other iSchool deans for participation and travel by their group members. Once the group was established and making progress, we pursued funding from IMLS for outreach and engagement and to build the coalition of iSchools involved in the initiative. Awarded in spring 2023, that LB 21 Forum grant is helping support the second phase of work, which includes soliciting and disseminating responses to this position paper, conducting meetings and forums among iSchools and library stakeholders, and documenting these interactions for ongoing deliberation by stakeholder groups. The outreach and engagement activities will result in a second volume of the position paper and guide future work of LIS Forward.

#### Note on authorship and voice

Part 1 is jointly authored, representing the collective contributions of the entire LIS Forward group. The five chapters that constitute Part 2 are individually authored to represent the particular expertise of these faculty. Group members were consulted and provided input throughout the development of all chapters, but the division of labor inevitably produced variation of voice across the different chapters.

#### Note on terminology

Our use of the term "LIS" recognizes that those working and studying in the field span and integrate multiple disciplines, intellectual traditions, and methodologies. We apply the term in a general sense of "LIS-oriented" — the range of research, academic programs, faculty, and students who contribute to the profession of librarianship, broadly construed. Also, for purposes of readability, we use the term "LIS" throughout, recognizing that "LS" is a preferred term in a number of schools.

Our use of the terms "libraries" and "librarianship" is also holistic, encompassing libraries, museums, archives, and repositories — the institutions and professions dedicated to information collection, access, and stewardship of knowledge.

The evolution of LIS as a field of study is at the center of much of our discussion. That evolution makes it more challenging than ever to define and codify LIS. We know much work lies ahead in clarifying and refining our terminology, and we hope respondents to this position paper will contribute to that goal.

#### PART<sub>1</sub>

## LIS in iSchools: Perspectives and Positioning

e began this work, as we begin this paper, by exploring the current landscape of LIS in iSchools. Chapter 1 presents an aggregate profile, drawn from research into the seven schools participating in the initiative. We open by situating LIS in the historical context of the iSchool movement and trace some of the changes that have occurred over the past two decades. This background provides an important lens through which to view the current state of LIS and librarianship.

Chapter 2, iSchool Leadership Perspectives, is based on interviews with the deans of the seven participating iSchools. The chapter synthesizes the discussions into a number of themes, illuminating many of the opportunities and challenges for LIS. These interviews also revealed a number of priorities for collective action across the iSchool community.

Chapter 3, Early Career Faculty Perspectives, is authored by the more junior faculty members of the LIS Forward initiative. From the outset, a core goal of ours has been to ensure that the next generation of LIS scholars is positioned to lead the field into the future. The authors raise a number of critiques that highlight obstacles to both their professional pathways and the field more broadly.

Chapter 4, iSchool Futures, concludes Part 1 by charting a set of priorities to guide future directions and investments.



#### CHAPTER 1

### Profile of LIS in iSchools

hat is the landscape of LIS in iSchools today? In this chapter, we consider the evolution of LIS within the iSchool environment, augmented by a profile of the seven schools participating in the LIS Forward initiative. While the profile represents a limited number of iSchools, our aim is to illustrate the general contours of present-day LIS in iSchools in research intensive universities. The composite view offers important context on multidisciplinary expansion, growth of undergraduate and graduate programs, and diversification of faculty expertise — key dimensions of change in the past two decades. To frame the profile, we begin with a very brief, and necessarily incomplete, overview of disciplinary evolution of iSchools, based on selected literature, and offer examples of how broader iSchool dynamics have shaped LIS research and educational programs in interesting and productive ways that we believe can inform future positioning of LIS.

The profile is based on data gathered from iSchool websites, accreditation self-studies, news items, and other accessible reports to document research areas, disciplinary orientations of faculty, academic programs, and student enrollments. While the data available is inherently uneven across schools, we have done our best to accurately represent an aggregate picture of the group of strongly comparable schools: iSchools at the University of Arizona, University of Illinois Urbana-Champaign, University of Maryland, University of North Carolina at Chapel Hill, Syracuse University, University of Texas at Austin, and University of Washington.

#### iSchool roots in LIS and IS

Schools of Library and Information Science (LIS) led the iSchool movement (Larsen, 2010). As concepts, problems, and opportunities related to information, people, and technology became prevalent across disciplines over the past 20 years, the movement, and many individual schools, have grown in size and stature, and they have become increasingly multidisciplinary. iSchools are not distinct from LIS programs in their subject coverage or methods (Dillon, 2012), and a recent analysis indicates that current vision and mission statements of iSchools remain similar to those of LIS programs (Bowman, Harrison, Tapia-Lynch, 2021). One of the most important distinctions of iSchools is their sphere of interest and influence, which extends well beyond the organizational context of libraries and the historical alignment of Library Science with Information Science.

In the documentation era of the Cold War, as Mayernik (2023) explains, funding for science exploded and "information science" became the dominant term for work associated with managing the increasing volume and complexity of scientific information. Information Science educational programs were often located in library schools (Lilley & Trice, 1989), with "library and information science" and the abbreviated LIS, becoming standard terminology. As documented by White & McCain (1998), two primary subdisciplines of information science emerged: one focused on scientific literatures and communication and another on information retrieval and other aspects of the human-computer-literature interface.

Over time the separate foci of "library" and "information" were sustained, yet sometimes contested

within the field (Bonnici, Subramaniam, & Burnett, 2009). However, the study of information writ large was never contained within IS or LIS. It took hold within many fields, vividly demonstrated in Machlup & Mansfield's seminal 1983 collection, *The Study of Information: Interdisciplinary Messages*. Library Science is one of about a dozen fields and areas of study represented in the volume, which also includes fields such as cognitive science, computer science, sociology, economics, semiotics, linguistics, cybernetics, and system theory. Boyd Rayward's chapter, "Library and Information Sciences: Disciplinary Differentiation, Competition, and Convergence," argues that "there is a disciplinary continuum between librarianship and information science with no easily identifiable boundary separating them, though the difference between the extreme ends of the continuum are clear and even dramatic" (p. 344). Today, the identity of iSchools is distinguished by a strong commitment to multidisciplinary research into fundamental information problems, applicable to society at large, and grounded in a formal focus on research productivity (Dillon, 2012), as is obligatory in research intensive universities.

The multidisciplinary mix of expertise within iSchool faculty has been a central, energizing force since the early days of the iSchool movement (Olson & Grudin, 2009). The continuing expansion of intellectual and academic scope within contemporary iSchools holds many opportunities and challenges for LIS. The field is now one of many represented among the faculty composition and student interests within our schools, and libraries are one of many sectors that rely on its research and employ its graduates. Traditional LIS research included a mix of Library Science, archives, information retrieval, and computer science (Olson & Grudin, 2009). In iSchools, research agendas now span broader concepts, problems, and opportunities related to information, people, and technology. As part of this constellation of information domains, LIS is better positioned than ever to draw on, synergize, and carve out new areas of interest and contribution.

The change in number and balance of academic programs and enrollments within iSchools is also significant. A decade ago, students enrolled in ALA-accredited master's programs were still the dominant cohort in iSchools (Wedgeworth, 2013). Now, at many schools Information Management programs are advancing along with an array of information and data degrees and specializations. While the addition of professional or graduate programs has been proceeding apace, the most significant cultural shift has been in the move into undergraduate degrees. These programs have opened up information education to a much larger and younger population of students, responded to the acute need for information expertise in many sectors (Ortiz-Repiso, Greenberg, J & Calzada-Prado, 2018), and are scaling to meet the more recent demands in areas including applied computing, data science, and Al.

#### Disciplinary and academic diversification

The advancement of iSchools beyond their LIS roots can be traced within their contemporary disciplinary and academic profile. For example, a representation of the research footprint of the seven schools is illustrated in Figure 1. While not comprehensive, or precise in terms of concentrations of activity, the figure displays the breadth of research, drawing from the listings and terms applied to describe research on school websites in 2022. The areas are positioned to illustrate the rough sequencing and expansion of research activity over time.

While the terminology and granularity of individual areas vary considerably across schools, the image captures the vibrant landscape of current research as it has responded to the strong influence of digital information, computational methods, and domain-based applications ranging from biomedical to the humanities. A current reinforcement of the principled and ethical grounding of LIS is also evident. All schools have a concentration of LIS-related research within a much broader informatics orientation.

Human-computer interaction (HCI) and data science are now firmly established within most schools. Importantly, across all schools, the technology focus is balanced with human-centered and policy-based emphases.

## Figure 1: Representative iSchool research areas

Source: Research areas as described on the websites of the seven iSchools in 2022

AI & algorithmic thinking

Future of work

Social justice informatics • Computing for social good • Information justice, human rights & technology ethics

Indigenous knowledge

Data privacy • Cybersecurity

Data science • Data analytics

Virtual reality • Video game design

Accessibility & inclusive design

Human computer interaction • User experience

Health, medical & bioinformatics • Computational social science • Computational linguistics

Digital curation • Data curation

Digital humanities • Cultural heritage informatics

• Computational archival science

Digital youth • Youth experiences, learning, and digital practices

Telecommunications & networking • Social networks

• Online communities • Organizations & collaboration

Information interaction • Sociotechnical information systems

NLP & text mining • Machine learning

Digital libraries • Ontologies

Information & society • Information policy

Knowledge representation • Information retrieval

Information collections, libraries, archives, & ethics • Youth literature and services

LONG-STANDING EMERGING

This highly intentional multidisciplinary expansion is rooted in the backgrounds of the faculty that span dozens of fields, including quantitative and qualitative social sciences and critical studies approaches, and with significant representation of computer science. The deans across the seven LIS Forward schools at this time reflect a changing balance, with one dean holding a Ph.D. in social informatics (from an iSchool with an LIS program), three with Ph.D.s in computer science (one from an iSchool without an LIS program), and the others in electrical engineering, curriculum/mathematics, and education.

New academic programs have flourished in iSchools, capitalizing on the demand for information and data competencies and professionalization in the workforce. Undergraduate information science degrees were launched at all seven schools, with the earliest at Syracuse in 1987 followed by Washington in 2000, North Carolina in 2003, Maryland in 2016, and Texas and Arizona in 2021. Enrollments in these programs are robust with many schools experiencing demand that exceeds capacity. The exposure to information education at the undergraduate level may also be contributing to growth in new master's-level graduate programs. As illustrated in the figure below, Library Science is the most common independent graduate degree program, followed by Information Management or Systems, Information Science, and Data Science.

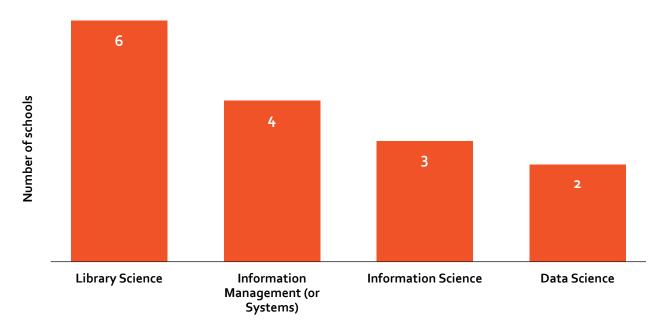


Figure 2: Master's Degree Programs

Some schools offer specialized degrees that build on their individual strengths. Examples include: Master of Professional Studies in Game, Entertainment, and Media Analytics (Maryland) and Master of Science in Information Security & Privacy (Texas). iSchools have also actively partnered across their campuses to develop interdisciplinary graduate programs involving multiple departments and schools, such as the Master of Science in Bioinformatics at the University of Illinois, jointly with the departments of Computer Science, Animal Sciences, and Crop Sciences; and the Master of Science in Data Science at the University of Washington, a collaboration with Applied Math, Biostatistics, Computer Science, Human Centered Design & Engineering, and Statistics.

Enrollment data of master's programs illustrate interesting trends. Figure 3 depicts the aggregate enrollments from 2013 to 2021 of the six schools for which comparable data was available. Contrary to

some perceptions, MLIS enrollments continue to be strong and continue to grow. While there was a decline from 2013 to 2016, enrollments have steadily increased since, recapturing the declines of the earlier years and eclipsing the 2013 numbers. At the same time, most of the overall growth in master's programs is in non-MLIS program enrollments, and the pace of growth is higher than in MLIS. If current trends hold, non-MLIS programs will reach parity with MLIS enrollments shortly. The non-MLIS dip in 2020 was likely due to COVID, as many schools reported that international students, who constitute significant proportions of information management/systems programs, had to cancel or postpone their enrollments. While not analyzed for this report, the addition of online degree programs is also supporting growth across graduate information programs.

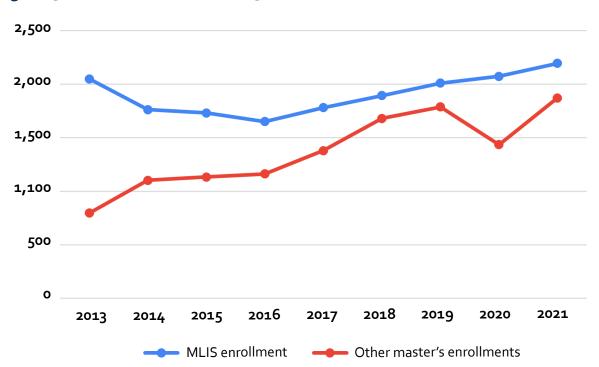


Figure 3: Enrollment Data, 2013-2021

Certificate options are also common. Most schools offer librarianship or school media librarianship certificates (5/7). Also prominent are certificates related to data science (3/7) and information security (3/7). Unique certificates include Illinois' Certificate in Teaching Media Literacy, North Carolina's Diversity Advocate Certificate, and Texas' Certified Records Manager (CRM).

All of the profiled schools offer experiential or practice-based options, such as capstones, practicums, internships, or other fieldwork opportunities. These allow students the opportunity to work with libraries, archives, museums, and other organizations. The collaborations involved in developing field placements are both a curricular strength and an important channel for community engagement.

Recent placement trends for MLIS graduates reinforce the long-standing patterns of employment within and outside libraries. Based on data from four schools, the majority of MLIS graduates take positions in public or academic libraries, as would be expected. For example, a 2020 survey of University of Washington's MLIS graduates indicates that 47% of respondents were working in public libraries and 38% in academic libraries. At the same time, a significant number of MLIS graduates take positions in

industry, NGOs, and government agencies. A recent survey from Illinois reported that 17% of graduates were hired into professions outside of librarianship.

#### Shaping of LIS identity in iSchools

How has LIS evolved in the context of broader iSchool growth? While programs have proliferated, the six independent schools profiled have remained non-departmentalized in structure and have historically championed associated philosophical stances, underscored by principles that promote a "school of one" or an ideology of "holding the center." LIS is positioned among a constellation of programs administered by the school, and, in all but one case, is not part of a larger college, thereby enjoying the kind of autonomy typical of other professional schools in fields such as law, business, and social work. While beyond the scope of this discussion, this kind of independent structure has become less standard among the growing, and increasingly international, membership of the iSchools organization, which now includes a mix of departments, schools, and colleges.

The changing makeup of the faculty within schools has been a significant feature of iSchool growth and change. Positions have been added and replenished with many new hires from a wider range of disciplines. As noted above, faculty from computing and engineering fields are prominent, with growth in the social sciences (sociology, communications), as well as the humanities (anthropology, linguistics). Among the profiled schools, roughly 30-35% of full-time tenure-track and professional or teaching-track faculty have their terminal degrees in library and/or information science. While we lack historical data, we assume this proportion has been decreasing as schools have diversified over the past 20 years and surmise that the proportion of LIS faculty with a significant focus on libraries is in decline. In 2022, of the 21 tenure-track faculty identified as new hires, about a quarter could be categorized as having an LIS orientation, with only four explicitly focused on libraries and the rest associated with a range of speciality areas related to data science, HCI, and informatics.

The further diversification within a larger overall body of faculty has created a robust mix of knowledge and expertise that arguably alters the intellectual dynamics within the schools. In the past, for instance, faculty members working in technical areas such as information retrieval and technology development would have been considered part of the L + IS conception of the school, as would faculty from a range of backgrounds, such as sociology, communication, education, and science and technology studies (STS). These are fields that have long been represented in the faculty ranks. However, as schools make strong investments in faculty from fields such as HCI and Data Science, the L + IS umbrella is much less applicable. Instead LIS is one of a growing number of strong concentrations within the faculty.

During this era of diversification, faculty with LIS backgrounds and interests have been actively establishing new professional and research frontiers responsive to trends in practice in libraries, schools, archives, museums, and data repositories. The emergence of areas such as digital youth and data curation have prepared the library workforce for evolving roles, succeeding, in part, by integrating the broader expanse of expertise within iSchools. The workforce and research frontiers are evident in recent LIS-oriented faculty hires who work in areas such as health equity in information, social justice-informed data practices, and systems of Indigenous knowledge. These specializations are contemporary counterparts to established areas of interest, such as public library policy, classification theory, and youth services librarianship, as well as more recent domains, such as digital preservation, web archives, and data curation.

The evolving specializations of LIS faculty can also be discerned in dissertations completed in the past five years in the profiled iSchools. Classic LIS dissertations were prominent in 2017 and 2018, addressing

research topics such as *Classification*, *Information Behavior*, and *Information Needs*. Over time, LIS dissertations have increasingly tackled topics such as *Digital Object Preservation*, *Digital Literacy*, *LGBT Identities*, and *Health Information*. See Appendix 2 for a list of selected dissertations from 2017-2022. Exciting directions in iSchools are also being driven by collaborations and synergies across LIS and other domains. Distinctive, integrative programs and research concentrations appear to be thriving. Examples include *Virtual Reality* and *Video Game Design* (Arizona), *Argumentation* and *Data Storytelling* (Illinois), and *Native North American Indigenous Knowledge* (Washington), *as* LIS faculty increasingly collaborate with and contribute to other fields, in alignment with academic research trends more generally.

Formal research centers, labs, and groups are an informative representation of research activity and strengths within the schools. Six schools list HCI groups, and multiple schools have groups focused on data science, data management, and health. Several have LIS orientations or mention libraries in the description of their mission or scope of work. Some represent long-standing areas such as children's literature (Center for Children's Books at Illinois) and preservation (Kilgarlin Information Preservation Lab at Texas), as well as more recent areas of specialization, such as digital archives (Center for Archival Futures at Maryland) and "critical making" (Equity in the Making Lab — North Carolina). Interestingly, only one school has a formal group with the term "libraries" in its name (Library Information Investigative Team at Syracuse).

The constrained funding landscape for library research is a significant limiting factor that undoubtedly contributes to the lack of library-oriented research centers. Establishing a research center typically requires multiple funding streams that can sustain operations over time, and in STEM fields in particular often depend on federal agencies that provide large-scale center grants. Currently, most LIS funding comes from a very small pool of sponsors. Library research is largely dependent on funding from the Institute of Museum and Library Services (IMLS), which does not offer large-scale grants on the scale of NSF. Private sponsors, such as the Mellon Foundation, are also making important investments, but funding opportunities tend to be in more targeted areas. While this review did not systematically examine the schools' grant portfolios, there are examples of significant awards in which libraries feature prominently. The University of Washington's Co-designing for Trust initiative, for instance, is supported by the NSF Convergence Accelerator program and is housed in a research center established with funding from the Knight Foundation.

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## iSchool Leadership Perspectives

his chapter presents the results of semi-structured interviews with the deans of the seven iSchools involved in LIS Forward. Each interview was one hour, and the deans were provided the questions in advance. The interview quide (see Appendix I) covered the evolution of LIS in the dean's school, exciting and concerning trends in the field, opportunities and tensions between LIS and other programs, and examples of how their schools are distinctive. The University of Washington conducted all interviews except for the one with the UW dean, which was conducted by an LIS Forward member from one of the other universities. This approach aimed to encourage the deans to be as forthcoming as possible in their responses. The interviews were fully transcribed. In our summary of results below, we include many anonymized excerpts with only minor edits to improve readability.

#### The paradox: The contemporary multidisciplinary iSchool is both the greatest strength and the greatest risk for LIS and librarianship

The deans see LIS Forward as an important initiative that centers the overall tension between the expansion and growth of non-LIS disciplines and the continued importance of LIS. iSchool growth in such areas as data science, HCI, AI, machine learning, and other emerging technologies have both propelled novel advances in LIS and heightened the risk of LIS becoming overshadowed by these technical areas. This has real implications when it comes to ensuring university presidents and provosts, especially new individuals in these roles, fully grasp the importance of LIS and its centrality in an iSchool, including understanding faculty hiring, research support allocations, and programmatic investments in LIS.



I think we're at an inflection point at our school where we need to figure out how to continue to do the kind of education and research in what I will call traditional librarianship and more traditional information science, and at the same time be able to adapt and adopt the new ideas coming from the more technical side of information science.

#### iSchool strengths

#### LIS values are foundational to what makes an iSchool an iSchool

LIS values were a recurring theme in the dean interviews. The deans spoke passionately about the social and humanistic values — e.q., access to information, information integrity, information ethics that underpin LIS and, importantly, imbue the full range of technical disciplines housed in an iSchool. Indeed, it is these values that distinguish an iSchool from schools of computer science (e.g., informatics versus CS) and business (e.g., MSIM versus MIS). These values have also propelled growing attention to iSchools and their research and graduates, due in no small part to growing public realization that societal problems with prominent technological dimensions (arguably nearly everything in today's world) require solutions that center these values. A data science school with a single faculty member

who specializes in data ethics, for instance, is not the same as a data science specialization in an iSchool where a majority of the faculty instill these values in their research and teaching.



The heart of our college is the MLIS. It's what drives us. The social values, the way you think about people, about service, and about the role of what you're doing in the world.

You have to have the well-roundedness of a humanistic approach and understanding of the role of data and information.

Fundamentally whether you're working at Meta or at the ... public library, a lot of the skills, a lot of the, I hope, dreams that you have are rooted in basic values like equitable access, like fair principles of not just access but creation and flow, with appreciation for the full information life cycle.

#### Multidisciplinarity enriches iSchools and LIS

Often in the same breath, the deans spoke of the central importance of multidisciplinarity in their iSchools. Indeed, values and multidisciplinarity are often inseparable in an iSchool context — LIS values are the glue when bringing different disciplinary traditions together to solve problems.



The first question we ask ourselves when we're hiring is, is this person an iSchool person? And that's really, are they multidisciplinary? Do they want to come into the generative environment that iSchools are?

You want to tackle the big problems in the world, that's part of the reason you're in the iSchool, and you don't necessarily want to take the traditional approach from the discipline you're coming in. You want to really look at the hard, thorny, and complex societal issues that are also a part of it. ... That makes a big difference with the folks coming in ... and it makes a big difference for them to want to go talk to folks who are from more of an LIS background.

The problem area of misinformation is a key example. Most experts would agree that technical or legal remedies alone won't solve the problem; it also requires expertise from information science, sociology, psychology, political science, education, and other fields to understand where and how misinformation is generated, how it flows, and why people believe certain information. It also requires applied research approaches to design sociotechnical systems and institutions that can support a healthier information ecosystem, including research involving libraries and participatory methods to design novel misinformation programs and services.

#### LIS and non-LIS faculty propel new research directions in librarianship

Since the iSchool movement started around 20 years ago, many schools have been involved in a process of renewal in which older faculty (from more traditional LIS areas) are retiring and being replaced by a younger generation that looks quite different from its predecessors. These new faculty may or may not come from iSchools, and even those with LIS degrees do not necessarily have expertise in librarianship.

None of the deans suggested that incentives were needed to facilitate non-library faculty to pursue research involving libraries. Rather, they cited examples of how this occurred organically through collaborations among like-minded individuals wanting to make a difference in the world.



We're seeing a lot of people who didn't come in necessarily interested in libraries figuring out ways to partner on projects that do include libraries.

We started hiring sociologists ... they're hardcore sociologists, and they make no bones about it. But they get the power dynamics, the cultural manifestations of public schools and libraries, and they write about it, and they talk about it.

#### Risks and challenges

#### Worst- and best-case scenarios

The deans largely echoed each other when asked to share their best-case and worst-case scenarios for the future of LIS in iSchools. On the positive side, every dean boasted about their LIS faculty, especially the younger generation, and the research they are doing spanning areas such as community and cultural informatics, digital humanities, digital curation, and social justice informatics.



The best case would be that Library Science saves our iSchools. Because we're all being adapted, merged, overwhelmed, and overshadowed by data science schools, data engineering, informatics this, informatics that.

The worst-case scenario is that LIS becomes just IS or data science, thereby losing librarianship as a pillar of the iSchool. This scenario carries the attendant risk to the profession in that there would be fewer research-intensive universities to advance new knowledge for the library field.

#### LIS could become a research-barren field, with direct impact on the future of librarianship



[The risk is that] only the second-tier non-R1 universities train librarians. And [The risk is that] only the second-tier non-R1 universities train librarians. And so, the librarians are coming out of the smaller schools where you can kind of get by with a non-research intensive student body.

While the deans did not sound the alarm bell just yet, the best/worst-case guestion appeared to provoke new thinking about the topic, heightening their awareness and prompting a more clearly articulated risk. The question also surfaced an understanding that threats to LIS are an iSchoolwide problem that necessitates collective action, an important factor underlying many of the deans' observations.

#### LIS overshadowed by "newer" areas

The deans expressed a common challenge that the more technical areas of data science and AI are typically perceived — incorrectly, they added — as more dynamic, intellectually rich, and relevant than LIS.



LIS, in some ways, depending on where you're at, may be very difficult to educate up the chain. There's this potential reaction, the word "library," what does that really mean in such a technological information age when they don't understand that the concept of library serving as the core? A lot of the questions that we have with data and archiving and the role of data in society actually have their roots in LIS.

Approaches to data science offer an interesting case. There are universities where data science is a part of the iSchool, others where it is a separate school, and yet others (not among this sample) where the iSchool has essentially been transformed into a data science school. The latter two scenarios pose the most significant risk to LIS. As one dean mentioned, the trend toward new data science schools or programs could pose an "existential threat" to the iSchool.

#### Is LIS a STEM discipline?

Compounding the challenge is the perception that LIS is not technical. It is often viewed as the social science arm of an iSchool in contrast to the STEM disciplines. In fact, LIS is part social science, part humanities, and part technical. The intellectual contours of LIS and librarianship are not fully understood by the broader academic community and too often not even within the iSchool faculty body as the schools have broadened.



[W]e also have strong ties to our technical community around us ... and [due to] growing overlap between LIS work and our tech ecosystem ... we're seeing students and our faculty investigating and doing more technical work than they'd previously been doing.

#### The talent pipeline: our greatest challenge

By far the most serious structural challenge for LIS, and by extension for librarianship, is the talent pipeline. In regard to the faculty hiring process, "L" faculty are often less competitive than faculty from other disciplines. With fewer "L" faculty there are fewer slots for Ph.D. students, which in turn reduces the pool of competitive "L" candidates. It's a vicious cycle that poses grave risks if left unchecked. The deans discussed how this is a collective action problem, since we all rely on each other to produce the next generation of LIS scholars.



My biggest concern is getting faculty who can compete in an R1 university.

The reality is I really need some library thinkers.

One consequence of this trend is the move to hire more teaching faculty instead of tenure-track faculty for LIS positions. While there is a real need for more instructional coverage, this further depresses LIS research and scholarship.

The talent pipeline conundrum raises particular challenges for LIS since it leads to lower levels of awareness and appreciation among the broader faculty of the types of research problems LIS scholars engage in, which in turn can lead to less support for LIS candidates during faculty hiring discussions. The following chapter on early career faculty perspectives shines a critical spotlight on this issue.



We have had times in the past [in] meetings of the LIS faculty, and they double down on their own worst nightmare, which is to silo themselves and have special meetings about what they need, when really what we want to do is make sure everybody is LIS faculty and everybody takes ownership of all the graduate programs as a school and as a unit.

#### A lack of diversity

Another systemic challenge is diversity. While we didn't directly probe this topic, adhering to our overall approach of allowing deans to communicate their own perspectives unprompted, all spoke of the serious challenge attracting diverse faculty and students.

The workforce demands librarians who reflect the communities they serve, and iSchools are not doing a sufficient job of attracting diverse students into the profession. This stands in contrast to the profession itself, which has yielded tangible gains through, for instance, high school internships. Some deans commented that the roots of this challenge are largely structural, relating to low salaries and historical stereotypes.



[We need to] increase the diversity of our MLIS program, which is doing well, but we always can do better. That's an opportunity ... [and] I think it's opened up [ways for] MLIS and our research to look at the broader ecosystem at the college.

We can do everything we can do to diversify our workplace, but if library schools are turning out 80% white women [...] then that's a hard problem to get around. Our intentions are good, our actions are often good, but there must be more that we can do to change that balance.

In contrast, many deans were excited about LIS research projects, for instance around libraries and social justice, to illustrate the important work of their schools and the opportunities for greater impact in this area.



I think many people who are on the cutting edge of what LIS is doing, rightly have things like social justice as part of their concerns.

Some of the strengths that we're seeing in the movement [include] next generation archives and preservation, ...and things that deal with information and social justice. [These] are rising up as examples of what the iSchool should consider investing and growing in. [Also] how we can synergize, and maybe that's the way that we can...show how we work together while still being unique.

#### **Moving forward**

The deans offered several suggestions for moving forward, many requiring collective action by the iSchool community.

#### Articulating a coherent LIS identity

Throughout their existence, iSchools have had difficulty in representing themselves, and this continues to be an area of concern for iSchool leadership. Exacerbating this long-standing problem is the further challenge of clearly articulating Library and Information Science, and how it relates to Information Science and now also the other fields within iSchools. It's an identity challenge inside an identity challenge. While the interviews did not probe each dean's definitions of these identities, they clearly felt the problem called for concerted attention. As one example, later in this report LIS is described as a collection-centric profession, and yet others argue that it is a community-centric or servicecentric profession. Clarifying and strengthening a coherent LIS identity in tandem with the iSchool identity is critical for all constituencies — faculty, future students, university presidents and provosts, representatives of libraries and industry, sponsors of research, and others.



But I don't think we can describe what we do well enough to help leverage the explosiveness, in terms of the value of what we provide as scholars and educators. And I think that will hinder us. And so if we could collectively shape that identity, we would all really benefit. ... That's something I would love to see happen. And if it's the more LIS-focused schools that come together and do that ... that would be really powerful and I think a good sign to the rest of the iSchool community.

In the case of the iSchools, it's clear that we are doing important research, .... but ... we're a meta discipline and so the impact is different. I think we should be looking for ways to get what we're doing out more, in front of policymakers. When I talk to my provost, I say that ... we are the skunkworks of the university. We are where you're trying to go, and you should be looking at us for that.

#### Generating grand challenges

Generating a set of grand challenges, much as is done in other fields, would serve to both surface critical areas of inquiry and strengthen a collective identity for LIS. Grand challenges would elevate the types of information problems iSchools are uniquely equipped to address, the values of LIS that shape the way we approach problems, and the opportunities for libraries to contribute to solutions.

Potential topics that were mentioned in the interviews included: public interest technology; mis/ disinformation related to democracy, health care, and climate change; digital libraries; information ethics; and responsible artificial intelligence.



I'd love for us to have a really good set of grand challenges that we as a field think we should be addressing.

#### Reaching into K-12 education

Many iSchools have had success launching undergraduate informatics degree programs, a trend that has contributed to showcasing the broad value of an iSchool education and expanding the pool of graduate applicants. Building on this success, several deans suggested looking to high schools or even earlier grades to increase the pool of future prospective students. Pursuing this requires attention to both the iSchool and LIS components of our brand as mentioned above.



Maybe we need to figure out a way to get ourselves into the high school Maybe we need to figure out a way to get ourselves into the night school curriculum, so that people are exposed to it. We've gotten ourselves now into the undergraduate curriculum, which is a huge advantage for all of us.

One dean, only half jokingly, mused about the possibilities at the elementary school level.



... And even information sets, like they have chemistry sets, so they [should] have little information sets.

#### Expanding partnerships with libraries and the tech ecosystem

While the deans each pointed to successful partnerships with libraries, they also suggested that more could be accomplished. Examples include: programs that tap into the full spectrum of iSchool expertise; design-based implementation research and research-practice partnerships that make both practical and scholarly contributions; and greater connections to the local tech ecosystem that builds on applied LIS.



I think that's not just because of the way that the field is moving nationally, but also driven by the fact that there really is a huge appetite for applied research in LIS broadly within our tech ecosystem.

#### Regional and global coordination

The deans spoke of the opportunity to engage the iSchools Organization as a way to coordinate action. They mentioned the need to do this at both a North American level and global level to reflect the different experiences, perspectives, and priorities of the regions.



It seems to me the iSchools Organization is primarily about allowing people to be branded as iSchools, and that's great. But what else should we be doing? North America has different concerns than Asia, which has different concerns than in Europe. The North American schools all tend to think of themselves as saying, "We're different from [each other]," and we're not, we have a lot of similarities. ... I'm eager to have a discussion of, what should the North American iSchools be doing together?

> What is an iSchool in North America? The argument is that we're all unique, which is wonderful on one level, but if we're all unique what does it mean that we all have the moniker of iSchools?

This chapter offers perspectives on the present and future state of LIS as viewed by seven iSchool deans. The interviews prompted reflection that surfaced a range of critical insights about challenges, opportunities, and ideas for ensuring a vibrant future. Some of the deans' observations reflected the experience of their particular school, most, if not all, have field-wide implications, suggesting the need for collective action. We identify and discuss these priorities further in the iSchool Futures chapter.

#### CHAPTER 3

## Early Career Faculty Perspectives

hen invited to co-create a chapter on our perspectives as assistant professors at iSchools, the four of us (Amelia Acker, Ana Ndumu, Beth Patin, and Andrea Thomer) quickly recognized two things: first, that we cannot speak for all iSchool assistant professors and, further, we represent remarkably different library and information science experiences as researchers and teachers. We drew from our intersectional identities and broad range of career backgrounds when contemplating the relationship between community- and collection-centric professions — that is, archival practice, museum curation, and especially librarianship — and evolving iSchools.

Our contribution to the LIS Forward position paper will hopefully deepen discussions on opportunities and challenges to thriving as LIS-focused faculty finding their place in rapidly growing and increasingly interdisciplinary iSchool programs. Our goal is to describe, through an emic, reflective approach, how iSchools can make way for new LIS-centered researchers who address critical information challenges.

We bring a unique perspective to the LIS Forward project because our professional identities were forged following what is now called "the iSchool movement," or the early years of the iCaucus made up largely of North American research universities (Larsen, 2008). Three of us are on the tenure track while one recently earned tenure. We now find ourselves mainly training emerging librarians and archivists.

We have traversed the iSchool movement (some of us worked in libraries and information science before iSchools existed) and represent a combined 29 years in LIS practice. In other words, we have collectively dedicated more of our lives to libraries, museums, and archives than to the professoriate. Yet, we are deeply connected to iSchools, having all earned our master's and doctorates at iSchools in their first decade of granting doctoral degrees and, later, embarking upon tenure-track positions at iSchools.

We came to academia from unique entry points, and our scholarly interests span at least 12 distinct foci: database curation, knowledge infrastructures, the history of data science, school librarianship, crisis informatics, epistemicide, cultural competence, immigrant information behavior, historically Black colleges and universities, data literacy, memory work, and digital archives. Each of us gleaned from our own stories to ponder our trajectory from the master's to doctoral studies then the job market and, ideally, on to tenure.

As a reminder, please read this chapter with the understanding that we use the terms "libraries" and "librarianship" in a holistic sense that encompasses libraries, museums, archives, and repositories — the professions associated with our collecting institutions and dedicated to information access and stewardship of knowledge. Additionally, it is essential to note our intentional use of "LIS" throughout this chapter. Recognizing that many faculty and students span and integrate multiple disciplines, intellectual traditions, and methods, we use LIS as a surrogate for a more general notion of "LIS-oriented" — faculty, students, and programs that contribute to the profession of librarianship, broadly construed.

#### **Preserving LIS foundations**

During our conversations, we realized that many of us and our LIS peers in doctoral programs, experience devaluing, dismissal, or even downright hostility to what might be phrased as "L-focused research." In some instances it was faculty pushing students to make sure they could convince others of the value of such work. Often students were dissuaded through belittling statements like, "People still go to the library?" or "Isn't everything on a computer?" These sentiments simultaneously make assumptions about the social and economic experiences of others and undermine the foundations of documentation, computer science, and information science, which are deeply rooted in library studies. When considering iDeans' concerns that we are not graduating tenurable LIS-focused Ph.D.s, we must examine how LIS has been marginalized and even ostracized within iSchools and look for ways to recenter and support foundational LIS research.

This erasure of foundational library and information science principles in iSchools is leading to epistemic injustices (Fricker, 2007) in our field and research paradigms. Epistemic injustice is the harm that people experience in their process of knowing. If left unchecked, it has the potential to lead to epistemicide. Epistemicide is the devaluing, silencing, killing, or annihilation of a knowledge system or a way of knowing (Patin et al., 2020). The conceptualization and analytic application of epistemicide has been established in a number of social science fields while information scientists have only recently acknowledged epistemicide in relation to the field's responsibilities as stewards of knowledge (Burgess & Fowler, 2022; Oliphant, 2021; Patin et al., 2021). Building from these recent identifications of the existence of epistemicide within the IS field, we challenge the field to become an epistemologically just space working to correct the systemic silencing of certain ways of knowing, specifically through the interrogation of neutrality in the LIS field. Centering epistemicide as our ethical framework allows for a more transparent view of our ethical stances, which often go unstated and unrecognized. From this explicit position, we argue for an acknowledgement of the history of the LIS field and its conception of information, systems, and documentation.

#### Changing the culture of Ph.D. admissions

iSchool leaders should consider ways of changing the culture of iSchool doctoral student admissions and inclusion. We cannot cultivate thriving tenure-track LIS professors without further promoting LIS education and its professional grounding. The applied nature of MLIS (and equivalent degree programs) — and the professionalization of those entering LIS careers — sits in contrast to the intensive and often invisible research-focused Ph.D. program standards in iSchools. This misalignment is vividly evidenced in an implicit expectation that applicants will have a pristinely packaged research agenda with academic publications prior to seeking doctoral study.

In our experience as iSchool instructors and admissions reviewers, applicants rarely enter MLIS programs with the professoriate in mind, and even fewer recognize their Ph.D. aspirations early enough to amass such exacting credentials. Few of us had opportunities for the kind of growth needed, through research fellowships or other immersive scholarly experiences, that might be transformative, especially for first-generation graduate students. Investment in mentorship is needed and should include support for developing Ph.D. applications. Notably, some of us were rejected from the iSchool Ph.D. programs where we now find ourselves, and now we fully grasp why: we simply did not know how to conceive a research plan, to say nothing of writing a research statement! **iSchools should consider avenues for empowering MLIS students to pursue Ph.D.s.** 

Another aspect of epistemic bias lies in presumptions of doctoral student fitness, whereby students

from humanities, arts, and LIS backgrounds are underestimated and overlooked. As iSchools have grown more interdisciplinary, the norms of Ph.D. admissions have shifted. We must probe Ph.D. admissions norms that prioritize applicants with high quantitative test scores, or from positivist or STEM-centered backgrounds. We must recognize that so-called "meritocratic" higher education practices discount students' lived experiences as well as their unpublished or nontraditional research and intellectual contributions. These practices principally disadvantage students from minoritized backgrounds, "non-traditional" applicants who may be returning to school after years in practice, and those who specialize in increasingly underrepresented LIS-focused areas. While other degrees such as engineering are moving toward unified, holistic, and equity-based Ph.D. admissions frameworks (Barker & Cloves, 2021), there is no evidence that U.S. Ph.D. in Information Science programs are doing so as a whole, though many universities have their own holistic review policies. Our admissions practices should reflect LIS values and traditions of access, starting with how we engage with master's students and reframing the definition of stellar credentials and research qualifications. **On-ramps to the Ph.D.** are needed for LIS doctoral hopefuls with limited or non-traditional research experience.

iSchool leaders can look to successful LIS initiatives and, rather than replicating or co-opting, learn alongside to contribute and build on their successes. The long-standing Spectrum Doctoral Fellowship program continues to model how iSchools can increase the number of Ph.D.s, mainly from diverse backgrounds, who can elevate LIS within iSchools. In 2004, Project Athena at Florida State University focused on fostering LIS Ph.D.s of color to become faculty members to guide the next generation of LIS professionals. Currently, the IMLS-funded Research Experience for Master's Students (REMS) program at the University of Michigan is an especially promising model, particularly those from underrepresented backgrounds. It provides exposure to research through mentors and a summer internship, as well as support in applying to Ph.D. programs.

Upon entering programs, LIS-centered doctoral students can feel pressured to reinvent themselves as data scientists or technologists. LIS research topics must be included within iSchools without the burden of acquiescence to or mirroring of other areas of scholarship. Returning to our assertion of the foundational imperative, LIS precedes many current information specialties; many iSchools were once library schools; and several of the intellectual domains germane to iSchools emanated from library or archival work. This discounted, muted history is a serious loss of rich and vital intellectual roots. LIS foundations should be reestablished as a core part of graduate and undergraduate learning in information science. As a result, iSchool leaders will need to weigh how this historical foundation can be better shared with iSchool faculty from non-LIS backgrounds.

Finally, postdoctoral positions are normalized for our computational, data, or STEM-oriented peers, but they are far less common in LIS. iSchools can take inspiration from programs like the Presidential Postdoctoral Fellowship that support recruiting diverse Ph.D. graduates to postdocs and their transition to tenure-track positions. Postdoc programs should become a standard approach for supporting and enculturating LIS Ph.D. students into research-active faculty roles.

#### Pathways to LIS faculty success at iSchools

Once LIS researchers are hired as tenure-track faculty at iSchools, they need to be understood by their departments and equipped for their journeys toward promotion. In nearly all the LIS Forward interviews, iSchool deans reported a common concern about a talent gap that impacts hiring of LIS faculty, suggesting the need for faculty conducting rigorous, groundbreaking, and impactful research from the field: they worry that today's LIS research impact will not merit promotion and tenure at prestigious R1 universities, particularly in regard to publishing venues and grants. We believe part of this gap stems from several counterproductive iSchool trends that devalue evidence of impact beyond the h-index and similar more quantitative metrics. We are not suggesting that tenure-track LIS faculty need not seek grants or publish in high impact venues — rather, that the importance and value of community- and practitioner-focused contributions need to be formally recognized. Below we discuss four areas of support as starting points for improving the pathway to promotion for LIS faculty.

- Support community- and practitioner-focused research. This goal tops our list of recommendations for a more realistic and multi-dimensional pathway to promotion for LIS faculty. To the extent that they are able, given their universities' tenure criteria, iSchools must acknowledge community and professional impact as part of LIS scholarship and as a necessary part of our work.
- **2)** Respect diverse and variable funding avenues. iSchool leaders need to recognize that LIS faculty are directly impacted by the skew toward "big science" collaborations by most federal funding agencies and the limited alternatives.
- 3) Recognize the labor of LIS teaching and student mentorship. LIS teaching often entails more one-on-one work with students than other iSchool courses; this needs to be accounted for in course assignments.
- 4) Build peer support for LIS faculty. Demystifying and unpacking the "hidden curriculum" that shrouds the tenure path is essential to sustaining the next generation of LIS researchers; This is particularly true for faculty who were first-generation students and for junior LIS faculty who need support in making their work legible to their interdisciplinary peers.

#### Supporting community- and collections-focused research and researchers

Often, early career LIS researchers hear conflicting advice about how to build their research enterprise and identify as leaders in a field that trains information professionals with terminal degrees. Many tenure-track LIS faculty have master's degrees in LIS and/or working experience as professional librarians, archivists, or pre-professionals working in memory institutions. Though these professional experiences are lauded as essential knowledge for teaching at the master's level, they are sometimes seen as liabilities for a research profile. Some of us have been asked to diminish previous training and professional working experiences in the profession: "Now that you are an assistant professor, you can drop the MLIS degree from your signature line."

Dismissing this past experience dismisses the years of labor that go into building the community ties necessary for much of LIS research. Many LIS researchers ground their scholarship in participation in professional communities, whether at the local, state, or national level, or in special interest groups that develop best practices and standards. Relationships with these groups are necessary for research and engagement, paving the way for access for interviews, embedded ethnography, workshops, and more. However, this invisible work of professional participation and community engagement often falls outside typical service or research duties covered in faculty activity reporting. Our value to iSchools, it

sometimes appears, rests upon injecting diversity and humanities-centered innovation into iSchools. For example, the deans lauded the new generation of research that integrates technical strengths and expertise in community and cultural informatics, digital humanities, digital curation, and social justice informatics. In practice, these areas of research require substantial labor that must be recognized and supported financially as well as philosophically. At some iSchools, travel and registration to attend professional conferences is not covered by departmental funds unless the faculty member is presenting a research paper. However, research presentations are not a program priority for many of the professional organizations we engage with, such as ACRL, ALA, SAA, or RDA. LIS faculty startup packages are often smaller than those of data scientists because we are not viewed as having significant research expenses. Establishing relationships with working professionals for research is often not well-understood because it is not the same as building an academic research network. Eschewing professional networking events such as annual meetings and working group organizing forecloses valuable research access and lessens our ability to measure the impacts of participation.

Finally, we note that support of this work must entail recognition that there are markers of impact beyond the citation. LIS researchers will never have metrics comparable to those of our colleagues in human-computer interaction (HCI) and computer science (CS); these fields are large, oriented around conference-publishing, and therefore have a more rapid rate of publication. LIS is relatively small and much more oriented around slower paced journal publication. We are heartened by the iSchools that do have explicitly inclusive views of scholarship written into their tenure and promotion criteria; we hope that others will follow the example.

#### Respecting diverse and variable funding avenues

The gradual defunding of public universities and the growth of computationally intensive team science are converging to drive funding priorities. The dominant research funding model for many iSchool HCI and information retrieval colleagues is through labs and large team collaborations supported with multi-year, multi-million-dollar grants from federal agencies. In this environment, LIS researchers are encouraged in various ways to pursue similar grants with higher award figures and from agencies that are viewed as more prestigious (e.g., from NSF instead of IMLS). Examples of statements we have heard that minimize achievements include, "We don't typically make publicity announcements on our school's website for grants less than \$100K" or "Now that you've received an IMLS Early Career Development grant, you should consider going for an NSF CAREER grant."

The pipeline problem surfaced in the dean interviews is a reality that is experienced in double measure by early career LIS faculty. In pursuing tenure, they must build out their research enterprise and recruit the next generation of doctoral students. Yet they simply do not have access to the same external funding levels as computationally intensive iSchool researchers. The Institute for Museum and Library Services (IMLS) and the National Endowment for the Humanities (NEH) have very modest programs compared to other federal agencies, and only IMLS prioritizes research that benefits libraries. Organizations like the Council of Library and Information Resources (CLIR) have limited programs supporting research and, instead of supporting individuals or teams, focus on supporting practical applications for professional communities.

Junior LIS researchers face a daunting choice: risk precious time trying to stand up a research lab without substantial external funding or shift their research agenda to align with "team science" research models, while maintaining earnest partnerships with the often marginalized communities or under-resourced professional groups at the center of their work. iSchools must recognize this conundrum and realize that some LIS faculty will never be positioned to pursue large grants, and that

the funding they do secure should be respected and publicized. We are heartened by the iSchools that do recognize, publicize, and celebrate smaller grants and other funding from non-STEM sources; we hope that others do the same.

#### Teaching and student mentorship support

The nature of LIS pedagogy differs from that of other iSchool master's level programs. It is arguably more dialogic and requires more one-on-one mentorship and career coaching. As scholars, we know that teaching the theoretical foundations of our field is critical to our students' professionalization. At the same time, our students are eager but anxious to become information professionals and expect us to provide them with a broad range of practical skills they believe necessary to land their first jobs. Unfortunately, the median starting salary for LIS-focused iSchool graduates is significantly lower than that of HCI and data science students coming out of other iSchool graduate and undergraduate programs. Many LIS students (many of whom have taken out significant student loans) feel considerable pressure to be ready for a competitive job market.

LIS teaching practices are also intensive. Class assignments often entail considerable research and writing that require significant grading. LIS master's courses are often of an awkward size that compounds this problem: too small to qualify for teaching assistants, but still much larger than conventional graduate seminars. Some of us are tasked with heavier teaching loads or more new preparations than our peers because of the lack of full-time LIS faculty and fewer course buyout opportunities due to funding limitations. We may also be assigned to teach conceptual or foundational undergraduate courses, which may be characterized as an expectation before going up for tenure. These class sizes tend to be large, stretching us thin and taking us away from MLIS courses where we may be more pedagogically valued and needed.

Mentorship responsibilities require additional extensive commitment to students beyond the classroom. With increasing numbers of adjunct faculty and fewer full-time LIS faculty, we are continually called upon for reference letters and other non-classroom-related student support. We are invested in training the next generation, and some of us have taken on advising for multiple LIS master's thesis projects in hopes that the student might pursue a Ph.D. Apropos, LIS faculty also have the challenges associated with mentoring doctoral students who find themselves isolated in labdominated iSchools.

To adequately support LIS faculty, iSchools need to recognize the weight and individual responsibility of their teaching and mentorship and improve school based support systems for LIS students. Importantly, teaching is at the heart of how LIS programs are judged, for example, in the influential US News and World Report rankings that impact the reputation of the school and help drive applications. We hope that iSchools invest in these classrooms accordingly. We have been encouraged by schools with flexible assistantship assignments that provide TAs for large-but-not-quite-large-enough classes with extensive writing assignments, or that adjust teaching loads to account for significant extracurricular mentorship, or have LIS-specific advising support staff. We hope other schools follow these programs' leads.

#### Peer mentorship and support

LIS-oriented researchers often work toward tenure amid nebulous peer mentorship and support. With the disciplinary and academic diversification discussed in Chapter 2, iSchools are hiring more faculty with CS and data science backgrounds. Many of these faculty are unaware (at best) or dismissive (at worst) of the epistemological, social, and political history of the foundations of iSchools. They often start with the privilege that comes with having substantial research awards and a solid track record of publication already in place. Given our diverse backgrounds and increasingly heterogeneous iSchool scholarly interests, we LIS researchers trained as master's and doctoral students in iSchools are asked for hidden service in educating new colleagues from cognate fields about what LIS is; the history of iSchools; and how to teach professional students who seek to work in libraries, archives, and other cultural heritage institutions. Meanwhile, we may receive misguided or vague mentorship because of what appears to some to be our departmental disconnect, since library, archival, or collections-centric topics are increasingly rare. It is demoralizing when iSchool faculty mentorship fails — particularly, when our core work is patronized by even our closest colleagues. This paradoxical visibility and invisibility increases pre-tenure anxiety. If iSchools continue to raise expectations for collaborative research inquiry and funding graduate students, LIS researchers can benefit from mentorship related to project management training, grants editing and development, salary and startup fund negotiation, specifically to support doctoral students as research assistants. We believe that supporting early career LIS tenure-track faculty with graduate research assistants will also address many of the student mentorship concerns discussed above.

Mentorship problems are compounded by MLIS degrees' comparative accessibility and diversity (quizzical in light of what we know about the field's demographics). LIS faculty are more likely to be women and/or scholars of color and/or belong to LGBTQ community or other groups not historically represented in graduate school or the professoriate. **Effective mentorship requires affirming the whole professor.** iSchools should remain committed to the intellectual core of their programs by supporting LIS faculty hires with the same level of social, fiscal, and otherwise systemic resources as their peers. We have found programs like the National Center for Faculty Development and Diversity extremely helpful; they have validated for us that we are qualified, that academia has a long way to go toward undoing bias, and that being pre-tenure faculty at large, research-intensive institutions is fundamentally challenging. We encourage other iSchools to invest in similar mentoring programs.

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#### CHAPTER 4

## iSchool Futures

aving surfaced opportunities and challenges in the previous chapters, we close Part 1 by framing directions and investments for iSchools with a set of four conditions we believe are essential to LIS Forward objectives. We also pose questions to help stimulate further thinking and action on realizing these conditions. As with Part 1 as a whole, our lens is firmly on LIS in iSchools in research universities. We take it as a given that the profession should continue to have a research-based academic field at its foundation. The replenishment and advances gained through sustained, systematic research keep our educational programs strong and relevant, while making significant contributions to some of the greatest challenges facing humanity.

We recognize that this is an incomplete account of priorities. Recall, as discussed in the background section, we deemed two topics out of scope as we began our work — accreditation and core curriculum. As our group proceeded, we found it necessary to defer other complex and weighty topics, including the gendered nature of the field, the deeper dynamics of IS and LIS, and the merger threats that some iSchools face at their universities. In the Next Steps section below, we encourage individuals and groups to take up these and other important themes in response to this paper.

#### **Directions and investments**

#### A primed pipeline

The faculty pipeline was a prominent theme across the LIS Forward discussions. It emerged early in conversations with the deans, and the group revisited the topic from multiple perspectives at the Friday Harbor working meeting. Parts of the Early Career chapter are devoted to factors particularly relevant to Ph.D. students and pre-tenure faculty. We continue to find the pipeline concept apt for capturing the range of interrelated concerns about sustaining the academic field. A strong pipeline is also an essential foundation for sustaining the profession, which has its own career pipeline concerns not addressed directly in this report.

There are critical junctures and vulnerabilities throughout the pipeline, related to doctoral student recruiting, preparation, and mentoring; and faculty hiring, mentoring, promotion, retention, and renewal. Interventions and systems of support are needed throughout, based on the perspectives and experiences of students and faculty but also aligned with administrative and strategic priorities, which are strongly implicated in the success of LIS in the research university context.

Attention to the very beginning of the pipeline is most vital in securing and maintaining a primed state. Among the LIS Forward group, it is common knowledge that our schools have a dwindling number of doctoral applicants who have strong backgrounds and interests in LIS and who are pursuing seminal research questions in LIS. We need to increase the number of LIS Ph.D. graduates prepared to thrive in the research-intensive academic environment. This is the foundational step toward a virtuous cycle of high-achieving faculty who are advisors for new Ph.D. students, mentors to early career faculty, and research leaders in the field. The Early Career chapter offers important insights and strategies for

more inclusive admissions and related systemic changes in processes and culture. An equally important precursor is cultivating a strong pool of promising prospective students.

How do we attract more Ph.D. applicants who are committed to a research-intensive academic career in LIS? What support systems and structures should be in place throughout the pipeline?

#### Research reciprocity

The potential for high-impact interdisciplinary research seems stronger than ever in iSchools. LIS is positioned to both realize great benefits and to make significant and unique research contributions. iSchools have built substantial intellectual and methodological breadth and richness within their ranks. By design, the scope of research is broad and reaches into some of the gravest problems at the forefront of society. All fields of study and most societal progress hinge to some degree on information access and literacy — pillars of LIS from its origins to the present. There is tremendous potential for more reciprocity among LIS and the other research domains within iSchools. Collaborative initiatives within and across schools such as research centers are needed to further promote and support integrative research with LIS, but importantly also to attract more funding to LIS and library-centric research agendas.

Doctoral preparation is central to the health of the research enterprise and the primed pipeline discussed above is deeply implicated. All students headed into careers in R1 universities need to be preparing for that high bar of making original intellectual contributions that advance the state of knowledge. Ph.D. programs in iSchools support students from many academic and professional backgrounds who specialize in many different areas of study. As a result, our schools already have working models, mostly in STEM areas, that can be applied to incubate stronger research enterprises in LIS. Intentional growth is needed in opportunities for LIS Ph.D. students to apprentice in collaborative, grant-funded research and to advance into postdoctoral research positions.

How do we build LIS centers of research excellence that apply and integrate iSchool cross-disciplinary strengths? How do iSchool research centers apply, integrate, and leverage LIS expertise?

#### An evolved body politic

Through the growth and diversification of the faculty, the multidisciplinarity envisioned by early iSchool leaders is now well-established in many schools. The changes in scale and disciplinary heterogeneity are quite remarkable and rapid, considering the stasis within disciplines and academia more generally. The shifts have introduced complexities and tensions that are palpable as schools assess priorities, create strategic plans, make hiring decisions, and evaluate faculty progress toward promotion and tenure.

Schools need to establish governance approaches that support navigation of the differing norms, expectations, and criteria that pervade different disciplines. Additionally, the "professional school" imperatives associated with librarianship need to be factored into how planning, decision-making and assessment operate in a way that blends with overall faculty governance and does not relegate LIS to an outlier status.

Growth in the ranks of teaching faculty has been important for building instructional capacity and practice-based expertise within iSchool faculty. Teaching faculty enrich curriculum, perspectives, and culture within our schools. In LIS, teaching faculty bring much-needed professional experiences and benefits; however, it should not be at the expense of investments in LIS tenure-track faculty who are essential to the research enterprise. Building schools with a healthy balance of faculty ranks and

rigorous programs of LIS research requires high-functioning faculty governance, with clarity and transparency of priorities and deliberate, and well-planned strategies for achieving them.

How do we establish principled, inclusive governance that values the many kinds of contributions needed for excellence in basic and applied LIS research and state-of-the-art educational programs?

#### LIS values for all

LIS values emerged as a central theme in the perspectives shared by iSchool leadership and early career faculty. Here we carry forward the imperative of LIS values as the epoxy for uniting the different disciplinary traditions and strengths in our schools and the work we do to battle the urgent information problems of our time. As we are writing this report, however, trust in libraries and their core values are being challenged by some entities. Libraries are being attacked with proposed laws that, if approved and allowed to spread across the country, will tear down one of few remaining trusted information institutions in many communities.

There is an urgency for iSchools to infuse these values fearlessly beyond their mission, vision, and strategic plans, to their research and mentoring enterprise, strategic hiring initiatives, orientations of new doctoral students and faculty, and educational programs. While non-LIS faculty members in iSchools are quick to tap libraries as data collection and implementation sites for their community-centered research, we encourage faculty across disciplines to work collaboratively with LIS faculty and practitioners to apply genuine research partnerships with libraries and to consciously incorporate LIS values in their work. Such synergistic collaboration can also help libraries rethink their metrics of success and assist non-LIS researchers in embracing community-driven as well as scholarship-driven metrics. Upholding and advancing social justice for all and the other LIS values demarcated in the Declaration is a commitment that works to bind us as iSchool faculty.

How can we build appreciation and valuing of LIS in the larger landscape of weakening of trust in libraries? Using an L + IS approach, how can non-LIS and LIS researchers work collaboratively to seamlessly embrace LIS values to tackle the grand challenges of democratic society?

#### **Next steps**

The four conditions discussed here are at the core of strengthening LIS in our schools and achieve the forward movement we seek with the LIS Forward initiative. We present these priorities to our readers to open the door to further conversation and action by iSchools and the professional community.

The next step for the LIS Forward initiative is to solicit responses to this position paper from LIS researchers, educators, professionals, and thought leaders. We will also be holding online engagement sessions with representatives of the iSchool and library communities. The collection of responses and summarized discussions will be released as Volume 2 of the Friday Harbor papers.

We plan to accept written responses from individuals and groups. We encourage responses that are constructive and in the spirit of making collective progress by

- probing and elaborating on the four conditions and associated questions above,
- adding investments and directions that are vital to the achievements of the LIS Forward Declaration; and
- providing instructive examples of progress and success stories.

We know that some responses will expand the scope of the conversation by surfacing other opportunities and challenges, but our hope is that we can move toward concrete steps and models of success that are actionable through coalition-based strategies among iSchools.



If you really want to do high-impact scholarly work as well as high-impact education, the foundation has to be LIS. iSchools are leaders in this age of information and data, where the risk is there are bits and pieces of approaches and methodologies and potentially philosophies, but without a unifying way of thinking. Without the leadership of iSchools, we will keep running into catastrophe after catastrophe of misunderstanding the solutions we create and the way that we're harnessing information. We will look back in 10 years and see that there was nobody who was at the table who served as the adult to understand the implications of doing something a certain way, because an information scientist wasn't sitting there. iSchools should be synergistic leaders, and it's crucial for those with LIS training to be there.

— iSchool dean (anonymous)

## Appendix I: Dean Interview Questions

This interview protocol was reviewed and accepted by the University of Washington Institutional Review Board on June 21, 2023.

Thank you for taking the time to participate in a discussion about the present and future of LIS. This document provides the questions we will be using for our meeting.

Our plan is to record our meeting and make a transcript available for the working group that is developing the white paper. The white paper itself will not include identifying information. At the beginning of our meeting, we will ask for your permission to record or otherwise provide consent to use our notes for the white paper.

If you have any questions, please contact Carole Palmer (<u>clpalmer@uw.edu</u>) or Chris Coward (<u>ccoward@uw.edu</u>).

#### Interview questions: deans

- 1. How has LIS in your school changed in the past 5 years? (e.g. faculty profiles, student profiles, areas of research, new programs ...)
  - a. What is the profile of the last several LIS hires?
- 2. What is an exciting trend you've observed in LIS research and education in recent years?
  - a. Within the iSchool community?
  - b. At your school?
- 3. What is a concerning trend?
  - a. Within the iSchool community?
  - b. At your school?
- 4. How do you expect LIS to evolve over the coming decade at your school / more broadly? What's the best case scenario? Worst case?
- 5. Please share any examples of LIS research and education at your school that are distinctive or particularly noteworthy?
- 6. How does LIS education and/or research synergize or compete with your other programs?
- 7. Do you have ideas for attracting and incentivizing faculty whose core areas are not related to libraries to engage in library-related research?
- 8. What other opportunities and challenges do you foresee for advancing LIS education and research within your iSchool?
  - a. Do you have strategic priorities for LIS over the next 3-5 years?
  - b. What are your thoughts around hiring? Tenure vs. non-tenure track?
  - c. Do you incentivize collaboration between LIS faculty and faculty with other areas of specialization?
- 9. How does your school partner with libraries/communities to advance LIS education and research?
  - a. Do you have future plans or priorities?
- 10. Do you have any ideas/questions/topics for the iSchool community to address collectively?
- 11. Is there anything else you'd like to add?

## Appendix II: LIS Dissertations

Year	Name	Title	Advisor(s)	School
2017	Bullard, Julia	Classification design: Understanding the decisions between theory and consequence	Diane Bailey, Melanie Feinberg	UT
2017	Ocepek, Melissa	Everyday shopping: an exploration of the information behaviors of grocery shoppers	William Asprey	UT
2018	Atkinson, Brian	Information Leadership: A Quantitative Analysis of Language across Literature, Position Postings and the Roles that Leaders Play	Patrick Heidorn	UA
2018	Federer, Lisa	Who, what, when, where, and why? Quantifying and Understanding Biomedical Data Reuse	Katie Shilton	UMD
2018	Gruning, J. L.	Using Physical and Digital Artifacts to Make Us Who We Are: The Case of Paper and e-Books	Ciaran Trace	UT
2018	Littletree, Sandra	Let Me Tell You About Indian Libraries: Self- Determination, Leadership and VisionA History of Tribal Libraries in the United States	Cheryl Metoyer	UW
2018	Pierce Meyer, Katie	Documenting Architectural Practice	Philip Doty	UT
2018	Waugh, Amanda	A Nice Place on the Internet: An Exploratory Case Study of Teen Information Practices in an Online Fan Community	Mega Subramaniam	UMD
2018	Witt, Steven W	Making Internationalism Conscious: Libraries and the Transnational Propagation of the International Mind	Kathryn La Barre	UIUC
2019	Cho, Hyerim	Understanding Users of Cross-media Information: Contexts, Gratifications, and Information Features Focusing on Visual Narratives Materials	Jin Ha Lee	UW
2019	Dobreski, Brian	Values in knowledge organization standards: A value analysis of Resource Description & Access (RDA)	Barbara Kwasnick	SU
2019	Jackson Jr., Corey	Characterizing Novelty as a Motivator in Online Citizen Science	Kevin Crowston	SU
2019	Kehoe, Adam Kyle	Predicting Controlled Vocabulary Based on Text and Citations: Case Studies in Medical Subject Headings in MEDLINE and Patents	Vetle I. Torvik	UIUC
2019	Kodama, Christie	School District Library Supervisors and Their Role in Professional Development for Building-Level School Librarians: A Baseline Study	Ann Carlson Weeks	UMD
2019	Lawrence, E.E.	Reading for Democratic Citizenship: A New Model for Readers' Advisory	Emily J.M. Knox	UIUC
2019	Patin, Beth	Rising Together: Community Resilience and Public Libraries	Allyson Carlyle	UW
2019	Nelson, S. B.	Coming out of our shells: Safety and vulnerability in reality storytelling	Brian Sturm	UNC

2020	Barnes, H. L.	Conceptualizing and curating digital documentaries	Helen Tibbo	UNC
2020	Langa, Lesley	Building A Collection's Care Index: An Approach to Helping Preserve Our Cultural Heritage Before It Disappears	John Bertot	UMD
2020	Roscoe, E. E.	Potential risks of legal liability for collecting institutions: An empirical study of legal claims and a comparison with legal issues included in lis graduate curricula	Christopher Lee	UNC
2020	Summers, Ed	Legibility Machines: Archival Appraisal and the Genealogies of Use	Ricardo Punzalan	UMD
2020	Threats, M.	Information behaviors and engagement along the HIV prevention and care continua	Amelia Gibson	UNC
2021	Lee, Wan-Chen	Operationalizing cultural warrant in knowledge organization	Joseph Tennis	UW
2021	Maez, Paula	Voices from the Margins: A Narrative Exploratory Study of Fat Latinx Women and Their Information Processes/Interpretations of Health Messaging	Jamie Lee	UA
2021	Mills, J Elizabeth	Never the Same Storytime Twice: An Exploration of the Nature and Role of Reflection in Public Library Storytime Assessment	Michelle Martin, Michael Eisenberg	UW
2021	Phelps, Kirstin Clare	Collective Leadership for Community Action: A Case-Based Inquiry into Supporting Digital Literacy Initiatives	Kate McDowell	UIUC
2021	Roberto, Keller Raffaele	Description is a Drag (and Vice Versa): Classifying Trans Identities	Kathryn La Barre; Carol Tilley	UIUC
2022	Bratt, Sarah Elaine	Research Data Management Practices and Impacts on Long-Term Data Sustainability: An Institutional Exploration	Jian Qin	SU
2022	Gursoy, A.	Understanding change in the life of a complex digital object: a preservation perspective	Melanie Feinberg, Kenneth Fleischmann	UT
2022	Kumari Sharma, Sarika	The Institutionalization of Data Integration	Steve Sawyer	SU
2022	Li, Yingya	Detecting Health Advice Giving Practice in Medical Research Literature	BeiYu	SU
2022	March, L.	Behind the screens: Social media managers at cultural institutions	Marijel Melo	UNC
2022	Stahlman, Gretchen	Exploring the Long Tail of Astronomy: A Mixed- Methods Approach to Searching for Dark Data	Patrick Heidorn	UA